

1 7 λ

بسيط، إن أمكن، العبارات التالية :

►1. $A = -4 \times (-4t)$

►2. $B = 8x - (-5x)$

►3. $C = -4t^2 - 2t^2$

►4. $D = -10y - 9y$

►5. $E = -3y^2 - 7y^2$

►6. $F = -4a - 5a$

►7. $G = a^2 - 4a^2$

►8. $H = -7y^2 \times 8$

►9. $I = -2y \times 8$

2 7 λ

بسيط، إن أمكن، العبارات التالية :

►1. $A = 10 \times (-9x)$

►2. $B = -3a \times (-8a)$

►3. $C = 10y \times (-9)$

►4. $D = -9t \times (-3)$

►5. $E = 2y^2 - (-7y^2)$

►6. $F = x^2 - 9x^2$

►7. $G = 9 \times 2a$

►8. $H = -8y^2 + y^2$

►9. $I = 10x^2 \times (-8)$

3 7 λ

بسيط، إن أمكن، العبارات التالية :

►1. $A = -8x^2 \times 6$

►2. $B = 10 \times (-9y^2)$

►3. $C = 6t + 8$

►4. $D = 7y^2 + 10y^2$

►5. $E = 6x^2 - (-6)$

►6. $F = 6y - (-10y)$

►7. $G = 5t \times (-10t)$

►8. $H = 8y^2 + 6y^2$

►9. $I = -7y \times 3y$

4 7 λ

بسيط، إن أمكن، العبارات التالية :

►1. $A = 6a \times (-6)$

►2. $B = a^2 - (-8a^2)$

►3. $C = -7x^2 - (-x)$

►4. $D = -5t + 5t$

►5. $E = -t \times (-3t)$

►6. $F = 8y - 4y$

►7. $G = -3a - 4a$

►8. $H = -8y - 3y$

►9. $I = 2a \times 9$

5 7 λ

بسيط، إن أمكن، العبارات التالية :

►1. $A = 4t^2 - (-2t^2)$

►2. $B = 2y + 9y$

►3. $C = 4a - (-9a)$

►4. $D = -10 \times 6y^2$

►5. $E = 1 \times 9y$

►6. $F = 4y^2 + 4y^2$

►7. $G = -3t - 1$

►8. $H = -7a \times 3a$

►9. $I = 3a \times 5a$

6 7 λ

بسيط، إن أمكن، العبارات التالية :

- 1. $A = 7t - (-4t)$
 ►2. $B = -3t - 7$
 ►3. $C = -5x - 6x$

- 4. $D = 5t^2 \times 3$
 ►5. $E = -9 \times (-10t^2)$
 ►6. $F = -2a - 9a$

- 7. $G = 3y^2 - 8y^2$
 ►8. $H = 3y - (-y)$
 ►9. $I = -6x \times (-2x)$

7 7 λ

بسّط، إن أمكن، العبارات التالية :

- 1. $A = 4 \times 2t^2$
 ►2. $B = -5 \times (-4t^2)$
 ►3. $C = -3y \times (-1)$

- 4. $D = -2x^2 \times 8$
 ►5. $E = 6t \times 3t$
 ►6. $F = -2y^2 - (-6y^2)$

- 7. $G = 2t^2 - t^2$
 ►8. $H = -9a^2 \times (-3)$
 ►9. $I = 10y + 4y$

8 7 λ

بسّط، إن أمكن، العبارات التالية :

- 1. $A = 4a \times (-2)$
 ►2. $B = 5y^2 + 5y^2$
 ►3. $C = 5x \times (-5x)$

- 4. $D = -3y \times 1$
 ►5. $E = 5x^2 - x^2$
 ►6. $F = -10y^2 \times (-6)$

- 7. $G = -10x - (-6x)$
 ►8. $H = x^2 \times 3$
 ►9. $I = 4x^2 - 8x^2$

9 7 λ

بسّط، إن أمكن، العبارات التالية :

- 1. $A = 6 \times (-2x^2)$
 ►2. $B = -7 \times 10y^2$
 ►3. $C = -4 \times 4y$

- 4. $D = -6y - 4y$
 ►5. $E = -5x - 3x$
 ►6. $F = 7 \times 4x$

- 7. $G = -6a^2 - 7a^2$
 ►8. $H = -10y^2 \times 8$
 ►9. $I = -2 \times (-4a^2)$

10 7 λ

بسّط، إن أمكن، العبارات التالية :

- 1. $A = -2y^2 - (-6y^2)$
 ►2. $B = 10 \times (-6y^2)$
 ►3. $C = y^2 - (-9y^2)$

- 4. $D = a \times (-10a)$
 ►5. $E = 6y^2 + 8y^2$
 ►6. $F = -4 \times (-3t)$

- 7. $G = 7x^2 - 7x^2$
 ►8. $H = -t^2 \times (-10)$
 ►9. $I = 9x \times (-4)$

11 7 λ

بسّط، إن أمكن، العبارات التالية :

- 1. $A = -10 \times 8y$
 ►2. $B = -t \times 4$
 ►3. $C = -8y^2 \times 9$

- 4. $D = 5t \times 9t$
 ►5. $E = a^2 \times 8$
 ►6. $F = 6x \times (-3x)$

- 7. $G = 7t - 5t^2$
 ►8. $H = 7y^2 \times (-9)$
 ►9. $I = -7x^2 + 7x^2$

12 7 λ

ببسط، إن أمكن، العبارات التالية :

- 1. $A = 3a + 9a$
 ►2. $B = 4x^2 + 3x^2$
 ►3. $C = 7y^2 - 6y$

- 4. $D = -10x \times x$
 ►5. $E = 9x^2 - 6x^2$
 ►6. $F = -5x^2 - (-6x^2)$

- 7. $G = -3t + 9t$
 ►8. $H = -y - 3y$
 ►9. $I = 4x^2 - (-9x^2)$

13 7 λ

ببسط، إن أمكن، العبارات التالية :

- 1. $A = -5t^2 \times (-7)$
 ►2. $B = 2a \times (-4a)$
 ►3. $C = 10y \times 10$

- 4. $D = -3 \times 2x$
 ►5. $E = -3a^2 \times (-10)$
 ►6. $F = 10x \times 7$

- 7. $G = 10y - (-9y)$
 ►8. $H = -7 \times 5t^2$
 ►9. $I = 6y^2 \times (-5)$

14 7 λ

ببسط، إن أمكن، العبارات التالية :

- 1. $A = -9y - (-7y)$
 ►2. $B = -8 \times 3x^2$
 ►3. $C = 10a \times (-7a)$

- 4. $D = -8x^2 + 10x^2$
 ►5. $E = -3x^2 + 5x^2$
 ►6. $F = 9 \times (-x^2)$

- 7. $G = 7x - (-5x)$
 ►8. $H = -2x^2 + 7$
 ►9. $I = 1 \times t$

15 7 λ

ببسط، إن أمكن، العبارات التالية :

- 1. $A = -9x \times (-6)$
 ►2. $B = x^2 \times (-6)$
 ►3. $C = 9a + 5a$

- 4. $D = 10 \times (-9t)$
 ►5. $E = 7a^2 \times 7$
 ►6. $F = -4x - 3x$

- 7. $G = -t - (-3t)$
 ►8. $H = -2x^2 - 9x^2$
 ►9. $I = x^2 - (-7x^2)$

16 7 λ

ببسط، إن أمكن، العبارات التالية :

- 1. $A = -4 \times 4a$
 ►2. $B = -5y^2 + 6y^2$
 ►3. $C = 7y - 6y$

- 4. $D = -8a - (-10a)$
 ►5. $E = -3t \times 10t$
 ►6. $F = 3 \times 2x^2$

- 7. $G = -3t + 7t$
 ►8. $H = -10a + 9a$
 ►9. $I = 6a - 7a$

17 λ π

بسّط، إن أمكن، العبارات التالية :

- 1. $A = 8t \times 8$
 ►2. $B = -7 \times (-3t)$
 ►3. $C = -10x - 3x$

- 4. $D = 1 \times (-9a^2)$
 ►5. $E = 9 \times 4x$
 ►6. $F = -4y^2 \times (-10)$

- 7. $G = 4 \times (-6t)$
 ►8. $H = 5x - 7$
 ►9. $I = 4 \times 5a^2$

18 λ π

بسّط، إن أمكن، العبارات التالية :

- 1. $A = y^2 \times 2$
 ►2. $B = -9y - (-4y)$
 ►3. $C = 6a^2 \times (-10)$

- 4. $D = 1 \times 5x$
 ►5. $E = 9t - (-2t)$
 ►6. $F = 9x - 2x$

- 7. $G = 6t - 6t$
 ►8. $H = 7t^2 - 3$
 ►9. $I = -a^2 \times 9$

19 λ π

بسّط، إن أمكن، العبارات التالية :

- 1. $A = -3a^2 \times 7$
 ►2. $B = -10t - (-2t)$
 ►3. $C = 6x - 3x$

- 4. $D = 6 \times (-5a^2)$
 ►5. $E = 6a - (-3a)$
 ►6. $F = -9t^2 - 3t^2$

- 7. $G = 7a^2 \times (-1)$
 ►8. $H = 10y - (-9y^2)$
 ►9. $I = -10y \times (-6y)$

1 7 λ

بسّط العبارات الحرفية التالية :

$$\begin{aligned} A &= -(10x - 5) - 8x + 9 \\ B &= 9x - (-3x - 10) + 2 \\ C &= (-5x + 3) + 4x + 8 \end{aligned}$$

$$\begin{aligned} D &= -8 - (10x - 6) + 8x \\ E &= (10x - 9) - 8x - 4 \\ F &= -9 + 7x - (4x + 4) \end{aligned}$$

2 7 λ

بسّط العبارات الحرفية التالية :

$$\begin{aligned} A &= 8 - (6x + 8) - 3x \\ B &= -10 - (-9x - 5) + 3x \\ C &= -(2x + 3) + 6x - 2 \end{aligned}$$

$$\begin{aligned} D &= -9 + (-9x - 8) - 10x \\ E &= -(-5x - 5) - 9 + 3x \\ F &= -6x + (3x - 6) - 6 \end{aligned}$$

3 7 λ

بسّط العبارات الحرفية التالية :

$$\begin{aligned} A &= -5 - (6x + 10) + 8x \\ B &= 9x - (-6x + 2) + 5 \\ C &= 10 + (-7x - 8) + 7x \end{aligned}$$

$$\begin{aligned} D &= -6 - (-7x - 4) + 4x \\ E &= -(-5x - 5) + 8 + 8x \\ F &= -9x + 7 + (-4x - 9) \end{aligned}$$

4 7 λ

بسّط العبارات الحرفية التالية :

$$\begin{aligned} A &= -(9x - 8) + 7x + 8 \\ B &= 10 - 9x + (7x - 1) \\ C &= -(-3x - 2) - 10 + 5x \end{aligned}$$

$$\begin{aligned} D &= -(x + 7) + 5 + 8x \\ E &= -8x + (10x + 3) + 5 \\ F &= 6 + 3x - (-6x + 7) \end{aligned}$$

5 7 λ

بسّط العبارات الحرفية التالية :

$$\begin{aligned} A &= 6 + 3x - (8x - 2) \\ B &= 6 - (x + 3) + 2x \\ C &= -5 - (-x - 7) + 2x \end{aligned}$$

$$\begin{aligned} D &= 9x + (-5x + 3) + 6 \\ E &= 8x + (-9x + 3) + 6 \\ F &= -(5x + 2) - 4x + 8 \end{aligned}$$

6 7 λ

بسّط العبارات الحرفية التالية :

$$\begin{aligned} A &= 5x + 6 - (5x - 4) \\ B &= -(4x + 6) - 7 + 6x \\ C &= -7 - (-5x - 2) + 5x \end{aligned}$$

$$\begin{aligned} D &= -9x - 8 + (-9x + 6) \\ E &= 10x - (6x + 2) - 10 \\ F &= (-2x - 6) - 8 - 9x \end{aligned}$$

7 7 λ

بسّط العبارات الحرفية التالية :

$$\begin{aligned} A &= 8 - (-10x - 10) - 6x \\ B &= (3x - 7) - 7x + 4 \\ C &= -6 - 8x + (10x + 8) \end{aligned}$$

$$\begin{aligned} D &= -(7x - 3) + 3 + 7x \\ E &= 8 - (-5x - 9) + 6x \\ F &= -8 + 5x - (2x + 5) \end{aligned}$$

8 7 λ

بسط العبارات الحرفية التالية :

$$\begin{aligned} A &= -2 + (-8x + 1) + 6x \\ B &= -(7x + 9) + 3 + 8x \\ C &= -(-2x - 2) - 6x + 2 \end{aligned}$$

$$\begin{aligned} D &= 8x + (-10x + 8) - 2 \\ E &= -2x - (6x - 3) - 6 \\ F &= -(-9x - 2) + 10 - 2x \end{aligned}$$

9 7 λ

بسط العبارات الحرفية التالية :

$$\begin{aligned} A &= -8x - 7 - (4x - 6) \\ B &= (2x + 10) + 6x + 3 \\ C &= -(10x + 3) + 6x - 9 \end{aligned}$$

$$\begin{aligned} D &= 9 - (2x - 7) + 7x \\ E &= 8x + 7 - (-8x + 2) \\ F &= -9x + (4x + 6) - 6 \end{aligned}$$

10 7 λ

بسط العبارات الحرفية التالية :

$$\begin{aligned} A &= 5 - (7x + 2) + 4x \\ B &= -9 - 4x + (-2x + 10) \\ C &= 9x - (10x + 8) + 4 \end{aligned}$$

$$\begin{aligned} D &= -5 + 2x - (5x + 3) \\ E &= -10x + 6 - (-2x - 9) \\ F &= (4x - 9) - 5 + 3x \end{aligned}$$

11 7 λ

بسط العبارات الحرفية التالية :

$$\begin{aligned} A &= -(-7x - 2) + 10x + 4 \\ B &= 10 - (2x + 8) - 9x \\ C &= 10 - 5x - (5x - 7) \end{aligned}$$

$$\begin{aligned} D &= -6x + 4 + (-7x - 3) \\ E &= (-4x - 1) - 8 - 2x \\ F &= 5x - (10x - 1) + 10 \end{aligned}$$

12 7 λ

بسط العبارات الحرفية التالية :

$$\begin{aligned} A &= -9x + (-9x - 1) + 5 \\ B &= -(-2x - 7) + 3x - 4 \\ C &= -3 - 7x - (5x + 9) \end{aligned}$$

$$\begin{aligned} D &= -6 - (-10x + 5) + 4x \\ E &= -(10x - 4) - 3 + 5x \\ F &= -5x + 8 + (-10x - 3) \end{aligned}$$

13 7 λ

بسط العبارات الحرفية التالية :

$$\begin{aligned} A &= -2x + 8 - (-10x - 3) \\ B &= 6x - 10 + (9x - 5) \\ C &= -(10x + 9) + 5 + 4x \end{aligned}$$

$$\begin{aligned} D &= 6 + (8x - 1) - 6x \\ E &= -9x - (x + 5) + 4 \\ F &= -(-2x - 2) - 6 - 5x \end{aligned}$$

14 7 7

بسطّ العبارات الحرفية التالية :

$$A = (-3x + 4) - 7x + 5$$

$$B = -4 - (4x + 9) + 6x$$

$$C = 8x + (8x + 3) + 7$$

$$D = 7x - 10 - (6x + 4)$$

$$E = -(8x + 2) + 10x + 2$$

$$F = 6 - (6x + 8) + 3x$$

15 7 7

بسطّ العبارات الحرفية التالية :

$$A = -(-x + 4) + 5 + 9x$$

$$B = -5x - 3 - (-6x + 4)$$

$$C = (-3x - 4) + 6 + 8x$$

$$D = 7 - (-7x - 2) - 8x$$

$$E = -10 - 4x + (6x + 1)$$

$$F = -9x - (5x - 7) + 10$$

16 7 7

بسطّ العبارات الحرفية التالية :

$$A = -(-2x + 2) - 4 - 9x$$

$$B = (4x + 9) + 8 + 10x$$

$$C = -4x + (3x + 7) + 3$$

$$D = -2 + 8x - (3x + 2)$$

$$E = 7 + 9x - (9x + 6)$$

$$F = -8 - (-7x - 7) + 2x$$

17 7 7

بسطّ العبارات الحرفية التالية :

$$A = -4x - (-4x - 3) - 4$$

$$B = 10x + (-9x - 5) + 2$$

$$C = (-7x + 5) - 3 - 3x$$

$$D = -(-4x + 9) + 10x + 10$$

$$E = 4x - 10 - (6x + 4)$$

$$F = 8x - (10x + 9) - 3$$

18 7 7

بسطّ العبارات الحرفية التالية :

$$A = -8 - 3x - (x - 4)$$

$$B = -(-x + 6) + 4x + 4$$

$$C = 2x + (8x + 6) - 10$$

$$D = (x - 4) + 8 - 4x$$

$$E = 8 - (-3x - 7) + 5x$$

$$F = -10 + 3x - (-4x - 8)$$

19 7 7

بسطّ العبارات الحرفية التالية :

$$A = -9 - (4x - 4) - 4x$$

$$B = -(10x - 8) - 2x - 9$$

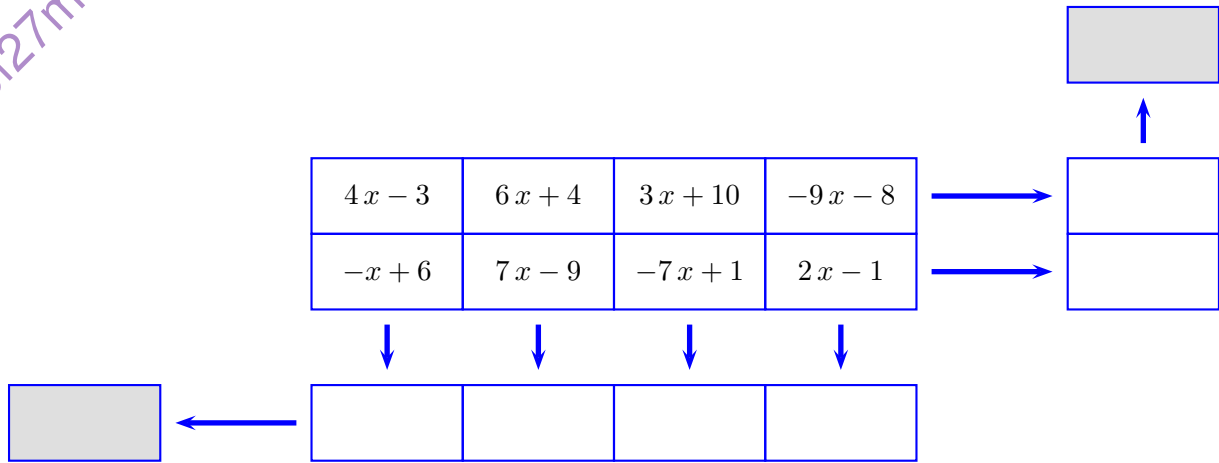
$$C = -2x - 4 - (3x + 10)$$

$$D = -7 + (-6x - 9) + 7x$$

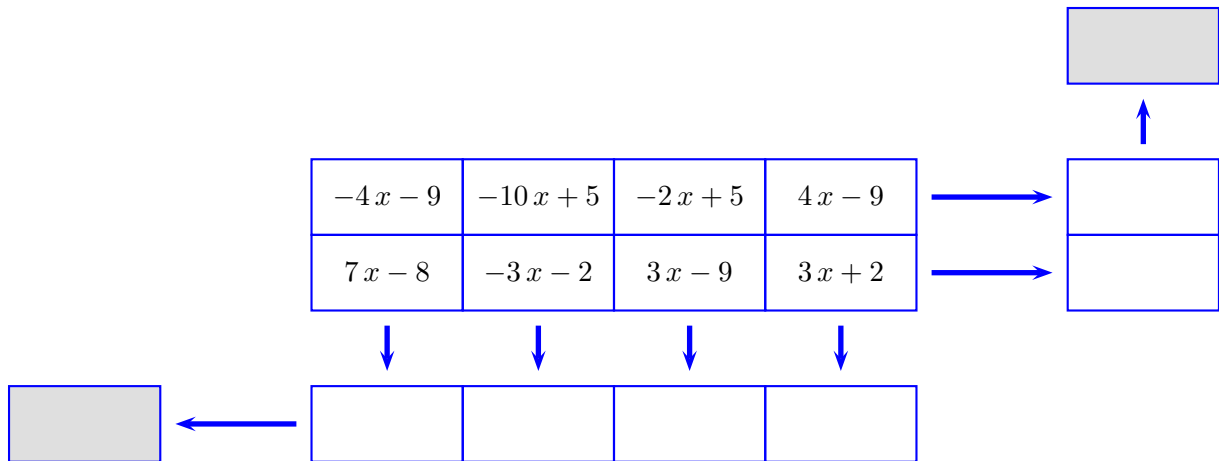
$$E = (3x + 6) + 3 - 4x$$

$$F = 7 - (-5x + 10) + 5x$$

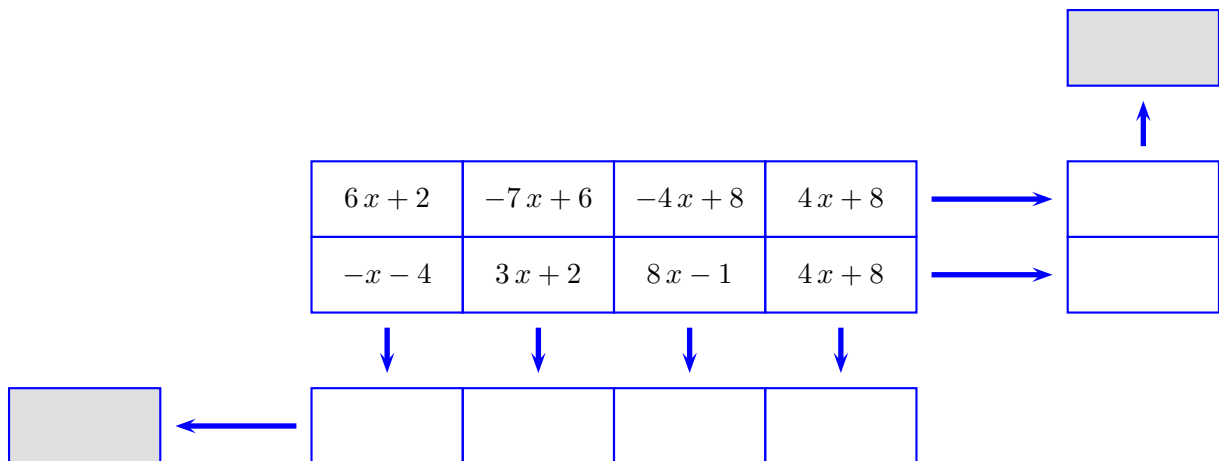
القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



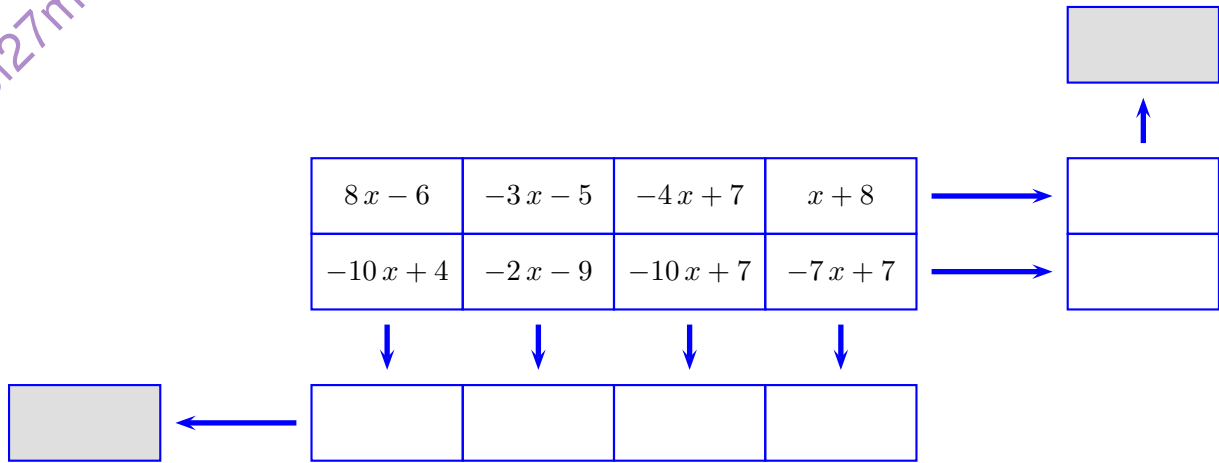
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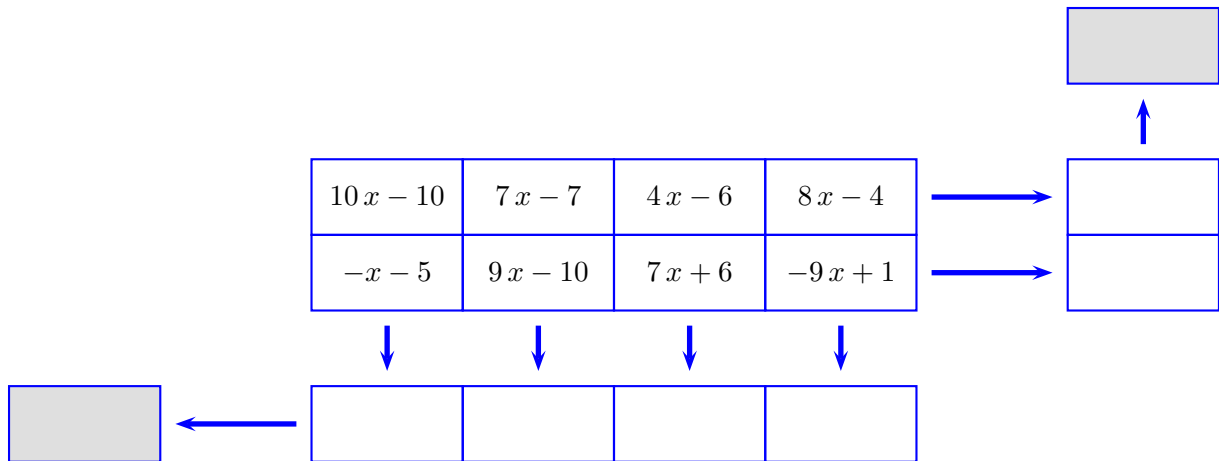
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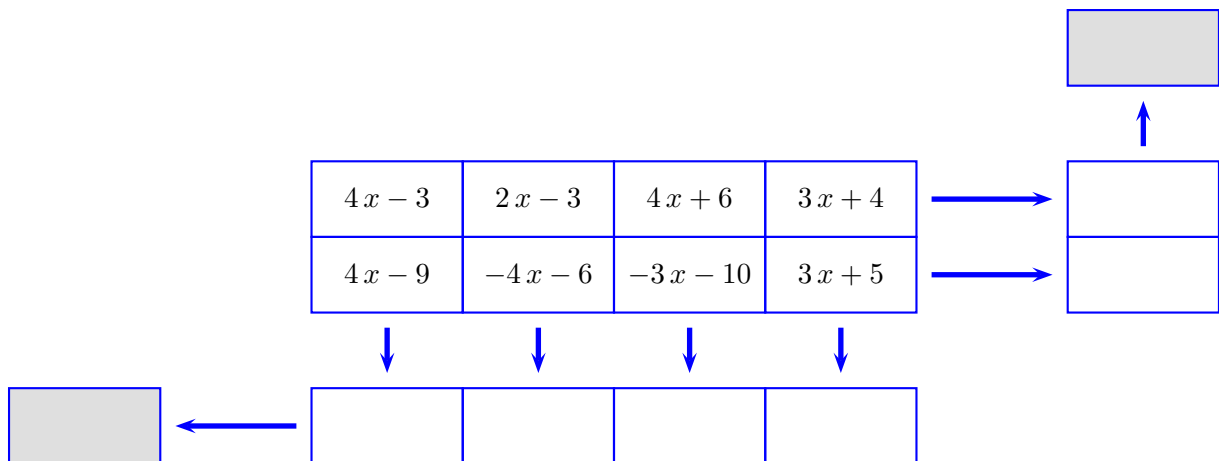
القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



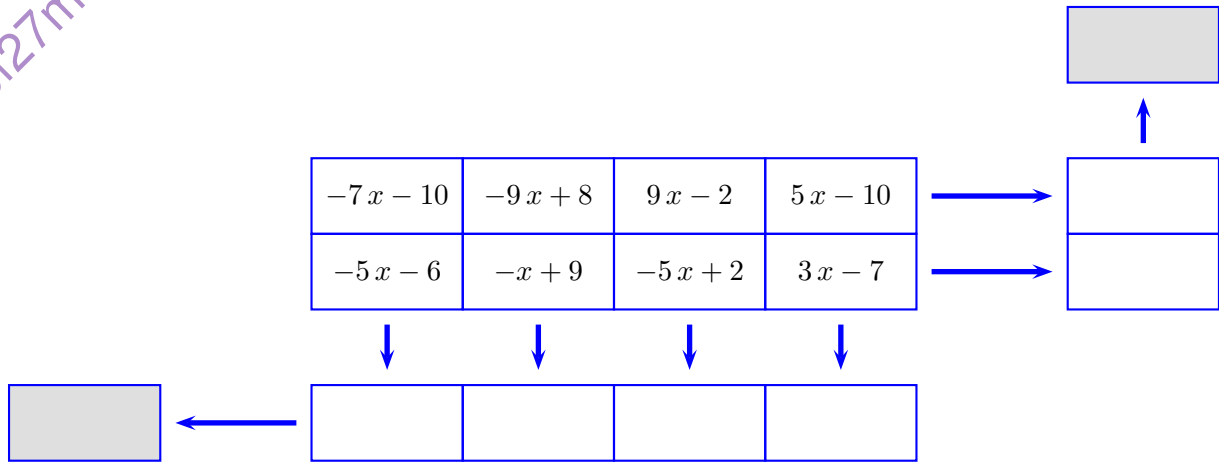
القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



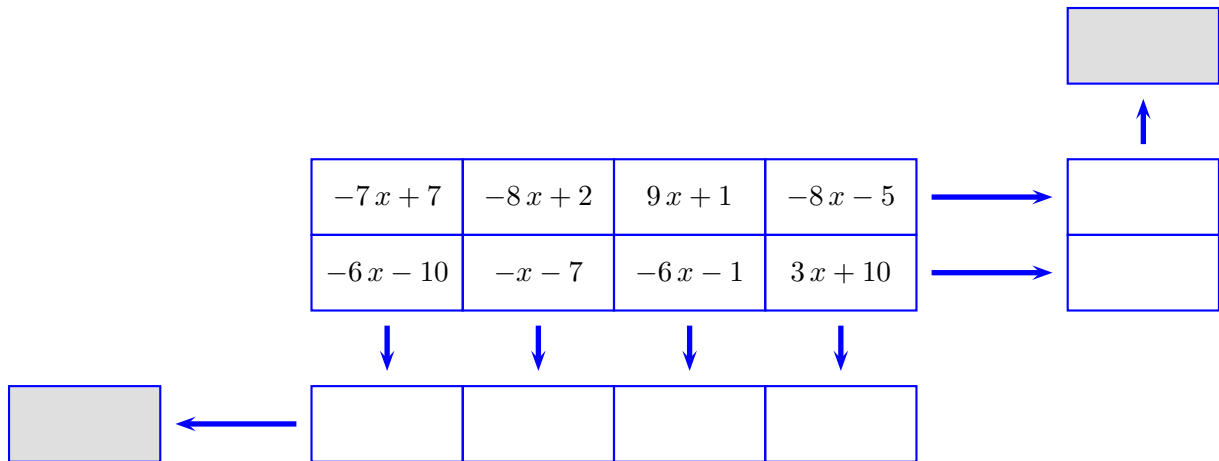
القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



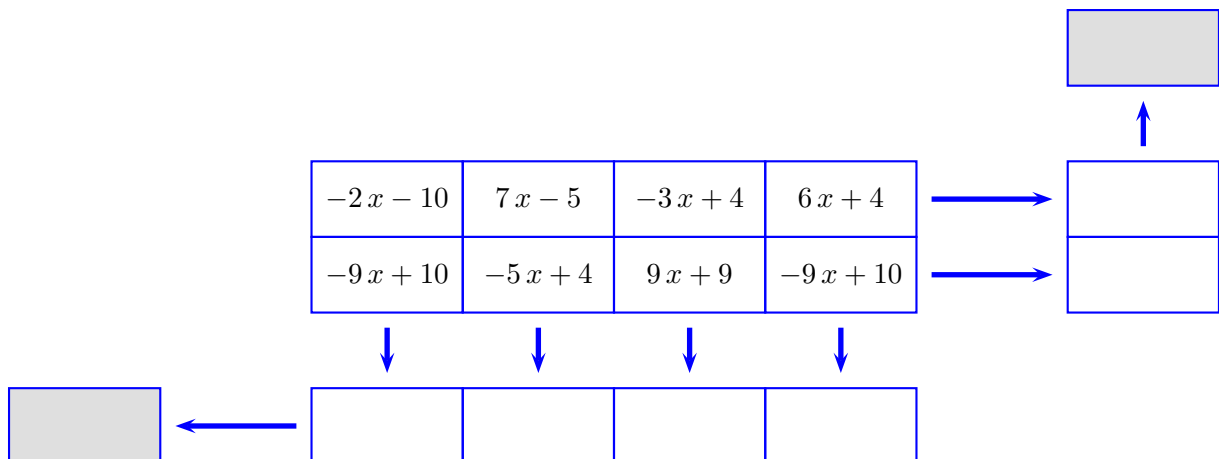
القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



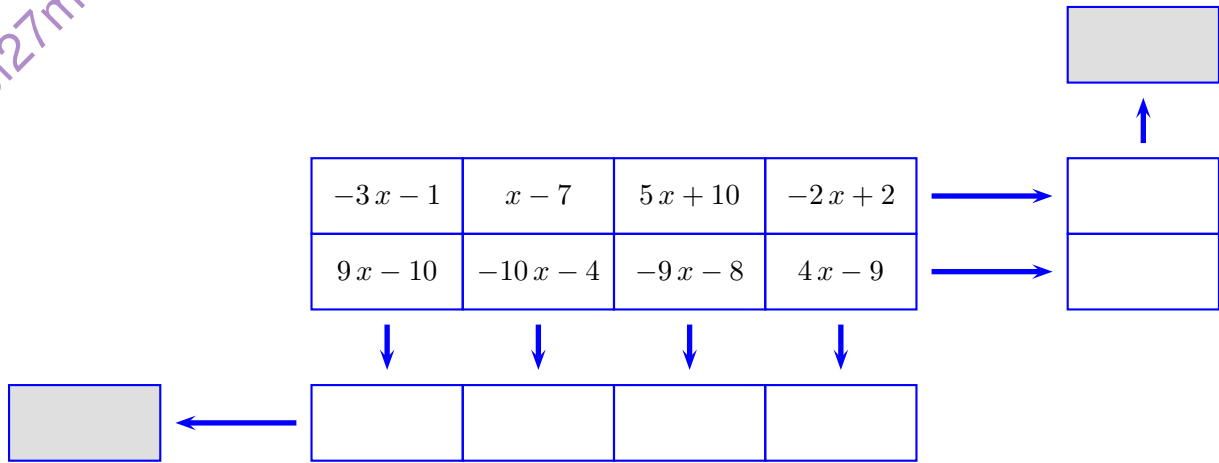
القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



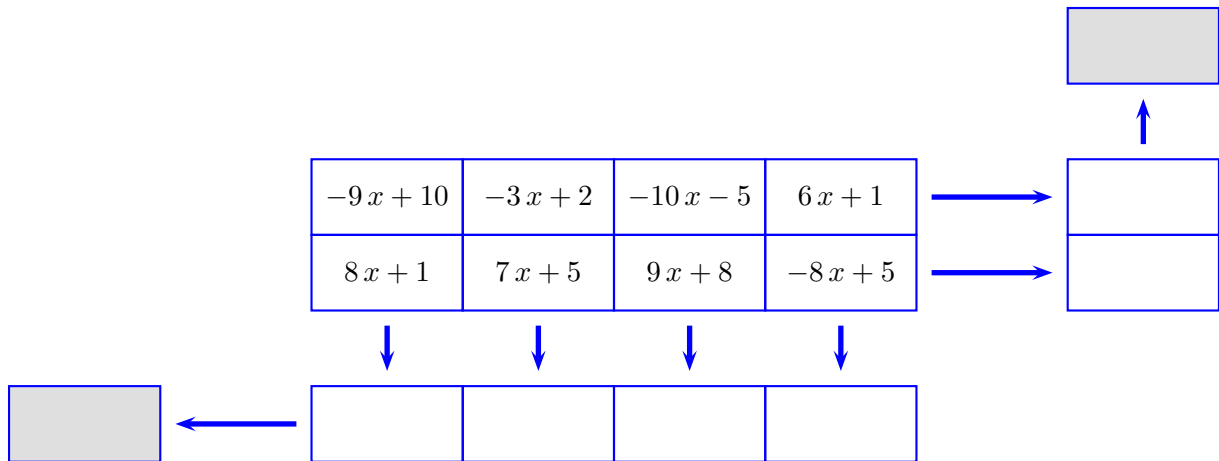
القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



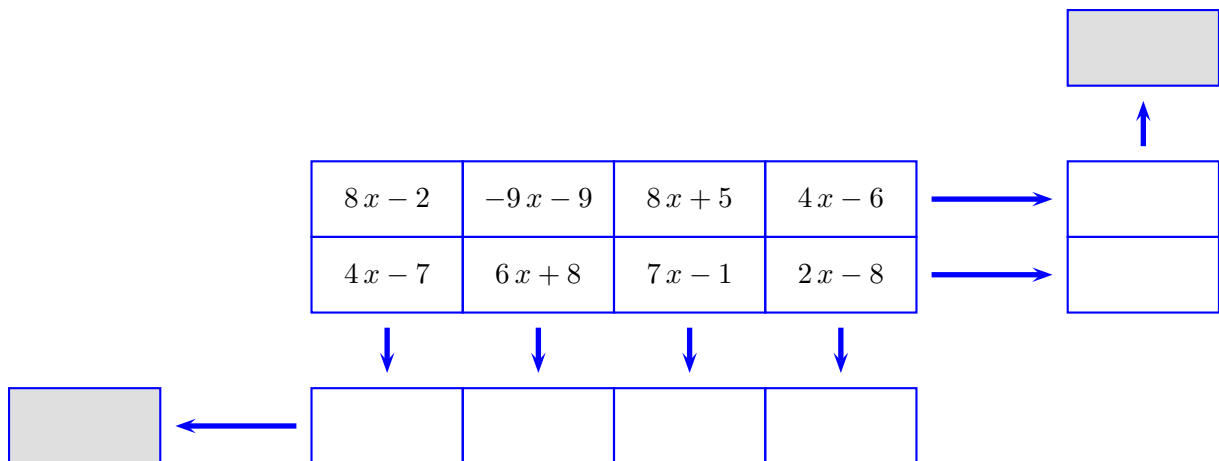
القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتوي الخانتين الرماديتين هو نفسه.



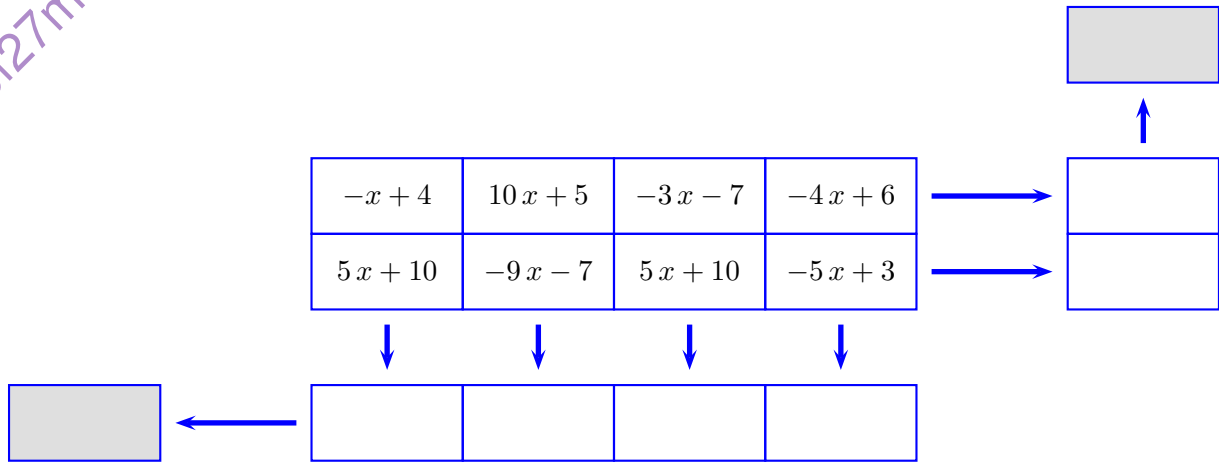
القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتوي الخانتين الرماديتين هو نفسه.



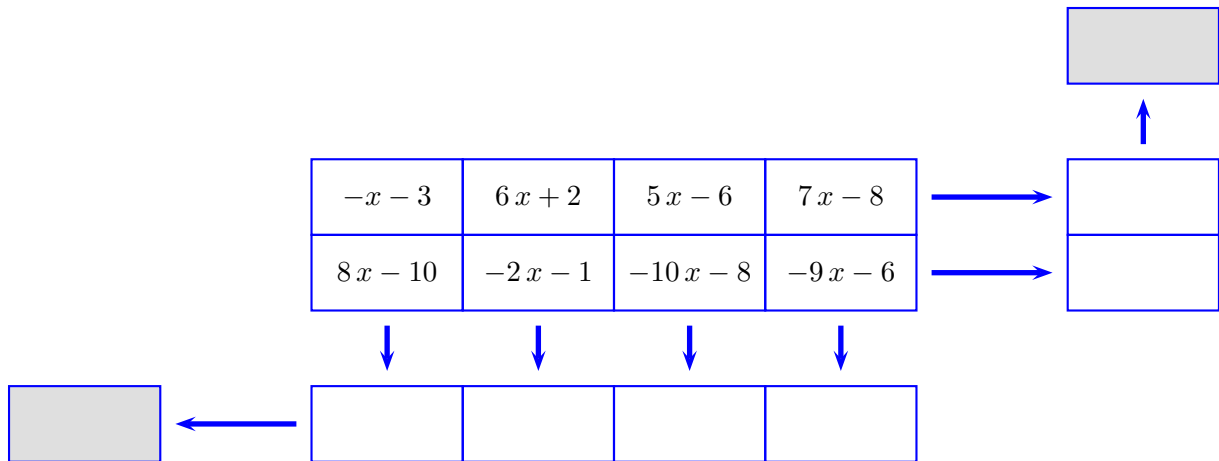
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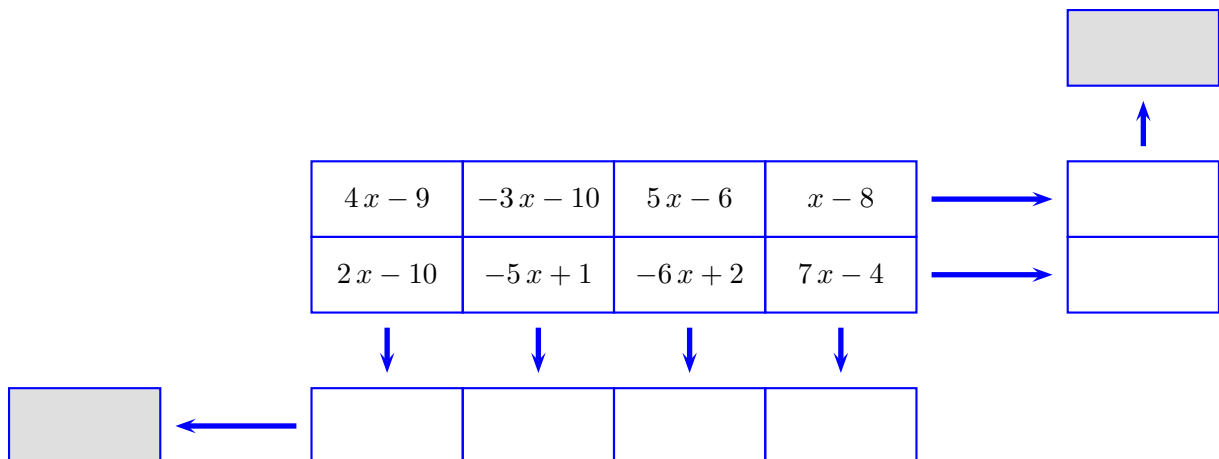
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أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



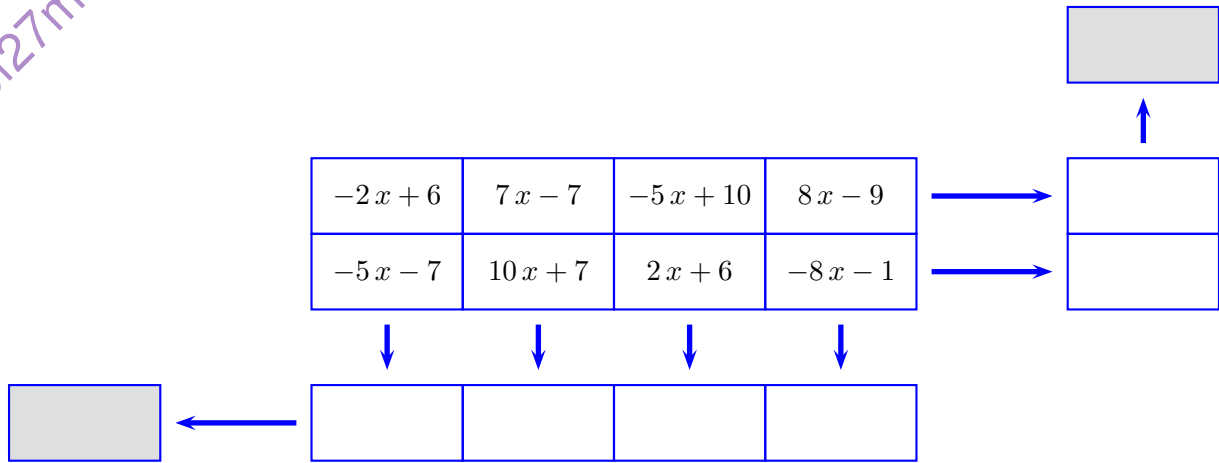
القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتو الخانتين الرماديتين هو نفسه.



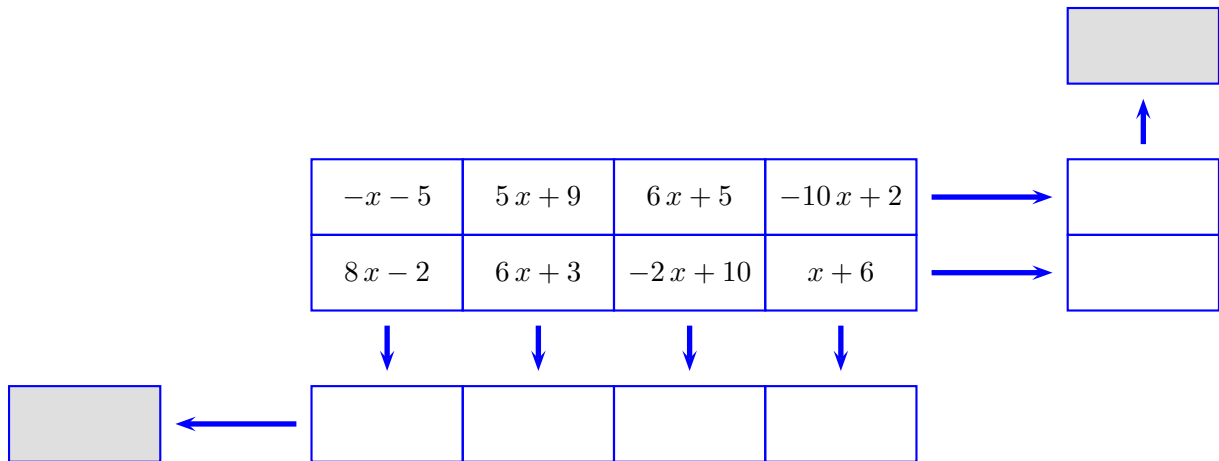
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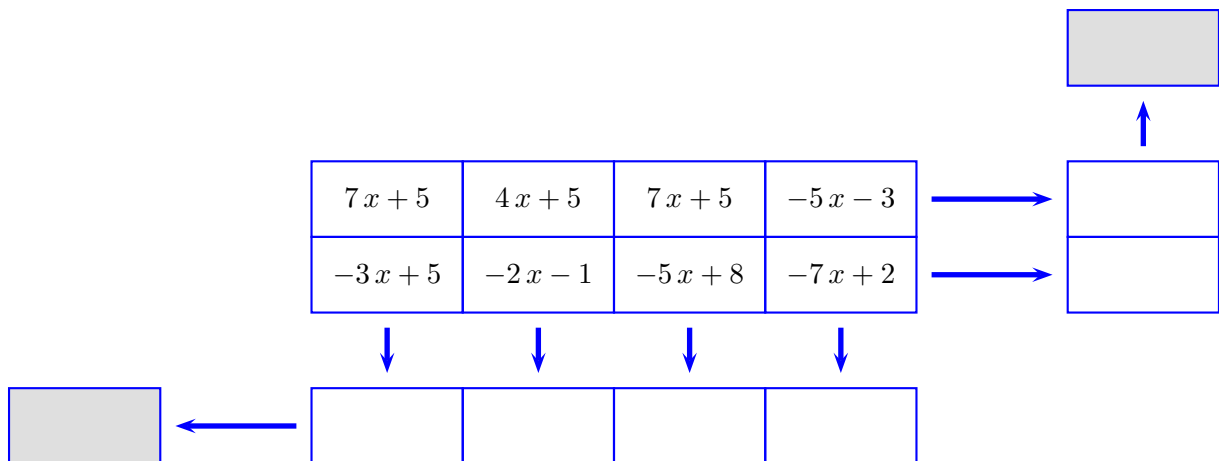
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أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



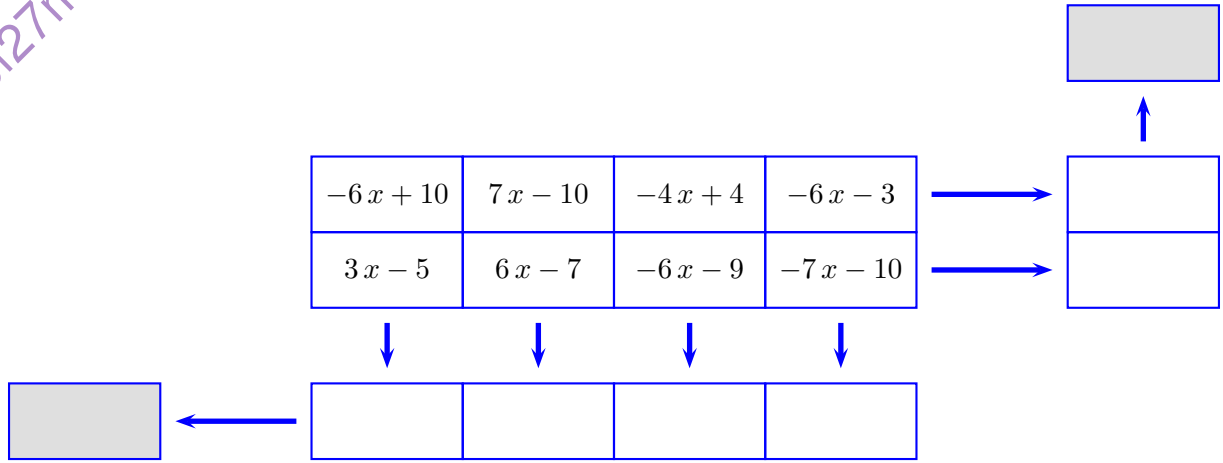
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أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



1 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 7 \times 3x$$

$$B = 6x \times 6$$

$$C = (x - 9) \times 9 + 5x + 5$$

$$D = (3x + 4) \times 6 - 8x$$

$$E = 5 \times (4x + 10) + 9$$

2 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times 3$$

$$B = 3 \times 6x$$

$$C = (-9x - 5) \times 4 + 10$$

$$D = 8 \times (10x - 8) - 2x - 4$$

$$E = 2 \times (10x + 1) + 8x$$

3 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3x \times 5$$

$$B = 9 \times 7x$$

$$C = 10 \times (-8x - 8) + 9x - 4$$

$$D = 2x + 6 \times (-2x + 8)$$

$$E = 7 + (-8x - 2) \times 7$$

4 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 8x \times 3$$

$$B = 8 \times 2x$$

$$C = (8x - 7) \times 6 - 6x$$

$$D = (-2x - 6) \times 5 - 9x + 6$$

$$E = 8 + (-2x - 3) \times 4$$

5 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 4x \times 9$$

$$B = 4 \times 7x$$

$$C = (-x + 4) \times 10 + 6x$$

$$D = 5 + (7x - 5) \times 3$$

$$E = -7x + 10 + (8x + 2) \times 7$$

6 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times 9$$

$$B = 9 \times 8x$$

$$C = 2 \times (-2x + 8) + x$$

$$D = 7x - 5 + 8 \times (-8x + 4)$$

$$E = 10 + (9x + 3) \times 6$$

7 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 7x \times 7$$

$$B = 2 \times 4x$$

$$C = -1 + 6 \times (4x - 3)$$

$$D = 7x + (-5x - 7) \times 10$$

$$E = 3 \times (-9x - 3) + 10x - 9$$

8 7 8

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times 5$$

$$B = 3 \times 5x$$

$$C = 5 \times (-7x - 5) + 7$$

$$D = 8 \times (-x - 1) - x - 5$$

$$E = x + 10 \times (-3x - 8)$$

9 7 8

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3x \times 7$$

$$B = 9x \times 6$$

$$C = x + 6 + (10x + 1) \times 8$$

$$D = -9 + (-5x - 3) \times 8$$

$$E = 2 \times (10x - 4) - 6x$$

10 7 8

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3 \times 3x$$

$$B = 5x \times 7$$

$$C = 4x + (-8x - 8) \times 7$$

$$D = (x + 8) \times 8 - x - 1$$

$$E = 8 \times (2x - 8) + 7$$

11 7 8

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times 6$$

$$B = 3x \times 9$$

$$C = (-9x + 5) \times 3 + 9x + 9$$

$$D = (8x - 3) \times 5 + 2$$

$$E = 2x + 7 \times (3x - 6)$$

12 7 8

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5 \times 9x$$

$$B = 9x \times 8$$

$$C = 4 \times (-9x - 8) + 3x$$

$$D = 3 \times (-x - 2) - 2x + 10$$

$$E = 3 + 5 \times (-9x - 7)$$

13 7 8

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 6x \times 8$$

$$B = 2 \times 4x$$

$$C = 5 \times (10x - 8) + 6x$$

$$D = 6 + 5 \times (2x - 1)$$

$$E = (-6x - 4) \times 4 + 6x + 4$$

14 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 7 \times 2x$$

$$B = 3x \times 7$$

$$C = 1 + 5 \times (-10x - 4)$$

$$D = 9 \times (-x - 6) - 4x + 6$$

$$E = 7 \times (4x - 2) + 3x$$

15 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 8x \times 2$$

$$B = 2x \times 4$$

$$C = -9 + (-x + 3) \times 10$$

$$D = x + 2 \times (5x - 10)$$

$$E = (-4x + 5) \times 6 - 2x + 4$$

16 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3 \times 7x$$

$$B = 3 \times 4x$$

$$C = (2x - 3) \times 5 + 7x$$

$$D = 10 \times (8x + 4) + 5$$

$$E = 4 \times (-10x + 2) + x - 10$$

17 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times 9$$

$$B = 9x \times 7$$

$$C = 10 \times (-9x + 1) + 8x - 5$$

$$D = -9 + (3x + 1) \times 7$$

$$E = 4x + (6x - 6) \times 5$$

18 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 4 \times 4x$$

$$B = 2x \times 6$$

$$C = (-x - 3) \times 6 + 8x - 6$$

$$D = 3x + (-3x - 4) \times 8$$

$$E = -3 + (-7x - 9) \times 6$$

19 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 2 \times 8x$$

$$B = 3 \times 3x$$

$$C = 4 \times (3x + 1) + 2$$

$$D = (-3x + 6) \times 9 + 6x$$

$$E = 8x - 3 + 8 \times (7x + 7)$$

1 7 7

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 6x$$

$$B = 5x \times 5x$$

$$C = (4x + 4) \times (8x + 9) - 2$$

$$D = 9x^2 + (2x - 9) \times (-9x + 7)$$

$$E = (4x - 9) \times (9x - 3) - 10x - 5$$

2 7 7

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 3x \times x$$

$$B = 2x \times 5x$$

$$C = 9x^2 + (-2x - 2) \times (2x - 3)$$

$$D = 1 + (-7x + 2) \times (8x + 4)$$

$$E = x + 9 + (-4x + 3) \times (8x - 7)$$

3 7 7

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$B = 5x \times 7x$$

$$C = (3x + 7) \times (8x - 4) - 2$$

$$D = (8x - 9) \times (-5x + 4) - 4x - 1$$

$$E = 4x^2 + (-7x + 4) \times (4x + 3)$$

4 7 7

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 7x$$

$$B = 6x \times 8x$$

$$C = 10x^2 + (9x - 2) \times (4x - 1)$$

$$D = (-10x - 10) \times (-5x - 6) + x + 10$$

$$E = -4 + (-8x - 5) \times (-10x + 8)$$

5 7 7

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 4x \times x$$

$$B = 8x \times 3x$$

$$C = -4 + (-3x - 5) \times (6x - 4)$$

$$D = -6x - 5 + (4x + 1) \times (x + 4)$$

$$E = -9x^2 + (3x - 1) \times (-9x + 7)$$

6 7 7

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$B = 3x \times 6x$$

$$C = -8x^2 + (5x - 7) \times (-4x + 1)$$

$$D = (3x + 9) \times (8x - 4) + 9$$

$$E = 6x + 9 + (x + 8) \times (5x - 8)$$

7 7 7

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 9x \times x$$

$$B = 2x \times 8x$$

$$C = -x^2 + (8x + 4) \times (-4x - 6)$$

$$D = -6x + 5 + (7x - 8) \times (-7x + 1)$$

$$E = (3x - 4) \times (-3x + 8) + 10$$

8 7 λ

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 8x \times x$$

$$B = 4x \times 8x$$

$$C = -8x^2 + (-2x - 5) \times (-x + 3)$$

$$D = -10 + (6x - 6) \times (6x + 1)$$

$$E = (8x - 2) \times (-8x + 3) - 9x + 10$$

9 7 λ

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 2x$$

$$B = 5x \times 6x$$

$$C = x^2 + (4x + 3) \times (7x + 4)$$

$$D = (-5x + 6) \times (7x - 4) + 6$$

$$E = 10x + 6 + (10x - 9) \times (-3x - 3)$$

10 7 λ

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 7x \times x$$

$$B = 8x \times 8x$$

$$C = (-5x - 8) \times (3x + 8) + 1$$

$$D = -2x^2 + (2x + 2) \times (10x + 5)$$

$$E = (-2x - 3) \times (-3x - 1) - 6x - 4$$

11 7 λ

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$B = 9x \times 4x$$

$$C = 7x^2 + (6x - 5) \times (-x - 2)$$

$$D = 7 + (-x - 9) \times (2x + 9)$$

$$E = -3x + 3 + (7x - 2) \times (7x + 8)$$

12 7 λ

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 3x$$

$$B = 8x \times 6x$$

$$C = (4x - 10) \times (2x - 9) - 8$$

$$D = (-7x - 2) \times (-3x + 4) - 4x + 8$$

$$E = (7x - 2) \times (-10x + 6) + 2x^2$$

13 7 λ

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 8x \times x$$

$$B = 2x \times 9x$$

$$C = -10x - 4 + (-8x + 1) \times (-4x + 4)$$

$$D = (-7x + 3) \times (8x - 10) + 4x^2$$

$$E = 10 + (-9x - 9) \times (-7x - 5)$$

14 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$B = 8x \times 3x$$

$$C = -9 + (-9x + 9) \times (-x - 4)$$

$$D = (9x + 1) \times (x - 9) + 5x^2$$

$$E = (8x + 4) \times (5x + 6) + 6x + 3$$

15 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3x \times x$$

$$B = 4x \times 4x$$

$$C = 6 + (10x - 2) \times (-6x - 2)$$

$$D = x^2 + (2x - 9) \times (-3x - 1)$$

$$E = -7x + 1 + (-3x - 4) \times (10x + 3)$$

16 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 7x$$

$$B = 7x \times 5x$$

$$C = 3 + (9x + 7) \times (5x - 7)$$

$$D = (-x - 1) \times (5x + 10) + 9x + 4$$

$$E = (4x - 8) \times (6x + 7) - 5x^2$$

17 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 7x \times x$$

$$B = 2x \times 6x$$

$$C = 3 + (-6x + 10) \times (3x + 1)$$

$$D = (-8x - 9) \times (x - 5) + 2x - 10$$

$$E = (-3x - 2) \times (x - 9) - 8x^2$$

18 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 4x \times x$$

$$B = 6x \times 5x$$

$$C = 2 + (-4x + 6) \times (9x - 9)$$

$$D = 10x^2 + (-6x + 10) \times (-x - 2)$$

$$E = (-5x - 9) \times (-3x + 9) + 7x + 5$$

19 7 7

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times x$$

$$B = 9x \times 8x$$

$$C = -3x^2 + (3x + 4) \times (-5x + 6)$$

$$D = 3x + 2 + (-10x + 7) \times (10x - 1)$$

$$E = 4 + (7x - 2) \times (2x + 5)$$

الحلول

موقع الأستاذ بلحوسين لرياضيات التعليم المتوسط

<https://prof27math.weebly.com/>

1 / التمرين 1

ببسط، إن أمكن، العبارات التالية :

►1. $A = -4 \times (-4t)$
 $A = -4 \times (-4) \times t$
 $A = 16t$

►2. $B = 8x - (-5x)$
 $B = (8 + 5)x$
 $B = 13x$

►3. $C = -4t^2 - 2t^2$
 $C = (-4 - 2)t^2$
 $C = -6t^2$

►4. $D = -10y - 9y$
 $D = (-10 - 9)y$
 $D = -19y$

►5. $E = -3y^2 - 7y^2$
 $E = (-3 - 7)y^2$
 $E = -10y^2$

►6. $F = -4a - 5a$
 $F = (-4 - 5)a$
 $F = -9a$

►7. $G = a^2 - 4a^2$
 $G = (1 - 4)a^2$
 $G = -3a^2$

►8. $H = -7y^2 \times 8$
 $H = -7 \times y^2 \times 8$
 $H = -7 \times 8 \times y^2$
 $H = -56y^2$

►9. $I = -2y \times 8$
 $I = -2 \times y \times 8$
 $I = -2 \times 8 \times y$
 $I = -16y$

2 / التمرين 2

ببسط، إن أمكن، العبارات التالية :

►1. $A = 10 \times (-9x)$
 $A = 10 \times (-9) \times x$
 $A = -90x$

►2. $B = -3a \times (-8a)$
 $B = -3 \times a \times (-8) \times a$
 $B = -3 \times (-8) \times a \times a$
 $B = 24a^2$

►3. $C = 10y \times (-9)$
 $C = 10 \times y \times (-9)$
 $C = 10 \times (-9) \times y$
 $C = -90y$

►4. $D = -9t \times (-3)$
 $D = -9 \times t \times (-3)$
 $D = -9 \times (-3) \times t$
 $D = 27t$

►5. $E = 2y^2 - (-7y^2)$
 $E = (2 + 7)y^2$
 $E = 9y^2$

►6. $F = x^2 - 9x^2$
 $F = (1 - 9)x^2$
 $F = -8x^2$

►7. $G = 9 \times 2a$
 $G = 9 \times 2 \times a$
 $G = 18a$

►8. $H = -8y^2 + y^2$
 $H = (-8 + 1)y^2$
 $H = -7y^2$

►9. $I = 10x^2 \times (-8)$
 $I = 10 \times x^2 \times (-8)$
 $I = 10 \times (-8) \times x^2$
 $I = -80x^2$

3 / التمرين 3

ببسط، إن أمكن، العبارات التالية :

►1. $A = -8x^2 \times 6$
 $A = -8 \times x^2 \times 6$

$A = -8 \times 6 \times x^2$
 $A = -48x^2$

►2. $B = 10 \times (-9y^2)$
 $B = 10 \times (-9) \times y^2$
 $B = -90y^2$

►3. $C = 6t + 8$

►4. $D = 7y^2 + 10y^2$

$$D = (7 + 10) y^2$$

$$D = 17 y^2$$

►5. $E = 6x^2 - (-6)$

$$E = 6x^2 + 6$$

►6. $F = 6y - (-10y)$

$$F = (6 + 10) y$$

$$F = 16 y$$

►7. $G = 5t \times (-10t)$

$$G = 5 \times t \times (-10) \times t$$

$$G = 5 \times (-10) \times t \times t$$

$$G = -50t^2$$

►8. $H = 8y^2 + 6y^2$

$$H = (8 + 6) y^2$$

$$H = 14 y^2$$

►9. $I = -7y \times 3y$

$$I = -7 \times y \times 3 \times y$$

$$I = -7 \times 3 \times y \times y$$

$$I = -21 y^2$$

4 / التمارين

ببساطة، إن أمكن، العبارات التالية :

►1. $A = 6a \times (-6)$

$$A = 6 \times a \times (-6)$$

$$A = 6 \times (-6) \times a$$

$$A = -36 a$$

►2. $B = a^2 - (-8a^2)$

$$B = (1 + 8) a^2$$

$$B = 9 a^2$$

►3. $C = -7x^2 - (-x)$

$$C = -7x^2 + x$$

►4. $D = -5t + 5t$

$$D = (-5 + 5) t$$

$$D = 0$$

►5. $E = -t \times (-3t)$

$$E = -1 \times t \times (-3) \times t$$

$$E = -1 \times (-3) \times t \times t$$

$$E = 3t^2$$

►6. $F = 8y - 4y$

$$F = (8 - 4) y$$

$$F = 4 y$$

►7. $G = -3a - 4a$

$$G = (-3 - 4) a$$

$$G = -7 a$$

►8. $H = -8y - 3y$

$$H = (-8 - 3) y$$

$$H = -11 y$$

►9. $I = 2a \times 9$

$$I = 2 \times a \times 9$$

$$I = 2 \times 9 \times a$$

$$I = 18 a$$

5 / التمارين

ببساطة، إن أمكن، العبارات التالية :

►1. $A = 4t^2 - (-2t^2)$

$$A = (4 + 2) t^2$$

$$A = 6 t^2$$

►2. $B = 2y + 9y$

$$B = (2 + 9) y$$

$$B = 11 y$$

►3. $C = 4a - (-9a)$

$$C = (4 + 9) a$$

$$C = 13 a$$

►4. $D = -10 \times 6y^2$

$$D = -10 \times 6 \times y^2$$

$$D = -60 y^2$$

►5. $E = 1 \times 9y$

$$E = 1 \times 9 \times y$$

$$E = 9 y$$

►6. $F = 4y^2 + 4y^2$

$$F = (4 + 4) y^2$$

$$F = 8 y^2$$

►7. $G = -3t - 1$

►8. $H = -7a \times 3a$

$$H = -7 \times a \times 3 \times a$$

$$H = -7 \times 3 \times a \times a$$

$$H = -21 a^2$$

►9. $I = 3a \times 5a$

$$I = 3 \times a \times 5 \times a$$

$$I = 3 \times 5 \times a \times a$$

$$I = 15 a^2$$

ببسط، إن أمكن، العبارات التالية :

►1. $A = 7t - (-4t)$

$$A = (7 + 4)t$$

$$A = 11t$$

►2. $B = -3t - 7$

►3. $C = -5x - 6x$

$$C = (-5 - 6)x$$

$$C = -11x$$

►4. $D = 5t^2 \times 3$

$$D = 5 \times t^2 \times 3$$

$$D = 5 \times 3 \times t^2$$

$$D = 15t^2$$

►5. $E = -9 \times (-10t^2)$

$$E = -9 \times (-10) \times t^2$$

$$E = 90t^2$$

►6. $F = -2a - 9a$

$$F = (-2 - 9)a$$

$$F = -11a$$

►7. $G = 3y^2 - 8y^2$

$$G = (3 - 8)y^2$$

$$G = -5y^2$$

►8. $H = 3y - (-y)$

$$H = (3 + 1)y$$

$$H = 4y$$

►9. $I = -6x \times (-2x)$

$$I = -6 \times x \times (-2) \times x$$

$$I = -6 \times (-2) \times x \times x$$

$$I = 12x^2$$

ببسط، إن أمكن، العبارات التالية :

►1. $A = 4 \times 2t^2$

$$A = 4 \times 2 \times t^2$$

$$A = 8t^2$$

►2. $B = -5 \times (-4t^2)$

$$B = -5 \times (-4) \times t^2$$

$$B = 20t^2$$

►3. $C = -3y \times (-1)$

$$C = -3 \times y \times (-1)$$

$$C = -3 \times (-1) \times y$$

$$C = 3y$$

►4. $D = -2x^2 \times 8$

$$D = -2 \times x^2 \times 8$$

$$D = -2 \times 8 \times x^2$$

$$D = -16x^2$$

►5. $E = 6t \times 3t$

$$E = 6 \times t \times 3 \times t$$

$$E = 6 \times 3 \times t \times t$$

$$E = 18t^2$$

►6. $F = -2y^2 - (-6y^2)$

$$F = (-2 + 6)y^2$$

$$F = 4y^2$$

►7. $G = 2t^2 - t^2$

$$G = (2 - 1)t^2$$

$$G = t^2$$

►8. $H = -9a^2 \times (-3)$

$$H = -9 \times a^2 \times (-3)$$

$$H = -9 \times (-3) \times a^2$$

$$H = 27a^2$$

►9. $I = 10y + 4y$

$$I = (10 + 4)y$$

$$I = 14y$$

ببسط، إن أمكن، العبارات التالية :

►1. $A = 4a \times (-2)$

$$A = 4 \times a \times (-2)$$

$$A = 4 \times (-2) \times a$$

►2. $B = 5y^2 + 5y^2$

$$B = (5 + 5)y^2$$

$$B = 10y^2$$

►3. $C = 5x \times (-5x)$

$$C = 5 \times x \times (-5) \times x$$

$$C = 5 \times (-5) \times x \times x$$

$$C = -25x^2$$

►4. $D = -3y \times 1$

$$D = -3 \times y \times 1$$

$$D = -3 \times y$$

$$D = -3y$$

►5. $E = 5x^2 - x^2$

$$E = (5 - 1) x^2$$

$$E = 4x^2$$

►6. $F = -10y^2 \times (-6)$

$$F = -10 \times y^2 \times (-6)$$

$$F = -10 \times (-6) \times y^2$$

$$F = 60y^2$$

►7. $G = -10x - (-6x)$

$$G = (-10 + 6) x$$

$$G = -4x$$

►8. $H = x^2 \times 3$

$$H = 3 \times x^2$$

$$H = 3x^2$$

►9. $I = 4x^2 - 8x^2$

$$I = (4 - 8) x^2$$

$$I = -4x^2$$

9

ببساطة، إن أمكن، العبارات التالية :

►1. $A = 6 \times (-2x^2)$

$$A = 6 \times (-2) \times x^2$$

$$A = -12x^2$$

►2. $B = -7 \times 10y^2$

$$B = -7 \times 10 \times y^2$$

$$B = -70y^2$$

►3. $C = -4 \times 4y$

$$C = -4 \times 4 \times y$$

$$C = -16y$$

►4. $D = -6y - 4y$

$$D = (-6 - 4) y$$

$$D = -10y$$

►5. $E = -5x - 3x$

$$E = (-5 - 3) x$$

$$E = -8x$$

►6. $F = 7 \times 4x$

$$F = 7 \times 4 \times x$$

$$F = 28x$$

►7. $G = -6a^2 - 7a^2$

$$G = (-6 - 7) a^2$$

$$G = -13a^2$$

►8. $H = -10y^2 \times 8$

$$H = -10 \times y^2 \times 8$$

$$H = -10 \times 8 \times y^2$$

$$H = -80y^2$$

►9. $I = -2 \times (-4a^2)$

$$I = -2 \times (-4) \times a^2$$

$$I = 8a^2$$

10

ببساطة، إن أمكن، العبارات التالية :

►1. $A = -2y^2 - (-6y^2)$

$$A = (-2 + 6) y^2$$

$$A = 4y^2$$

►2. $B = 10 \times (-6y^2)$

$$B = 10 \times (-6) \times y^2$$

$$B = -60y^2$$

►3. $C = y^2 - (-9y^2)$

$$C = (1 + 9) y^2$$

$$C = 10y^2$$

►4. $D = a \times (-10a)$

$$D = a \times (-10) \times a$$

$$D = -10 \times a \times a$$

$$D = -10a^2$$

►5. $E = 6y^2 + 8y^2$

$$E = (6 + 8) y^2$$

$$E = 14y^2$$

►6. $F = -4 \times (-3t)$

$$F = -4 \times (-3) \times t$$

$$F = 12t$$

►7. $G = 7x^2 - 7x^2$

$$G = (7 - 7) x^2$$

$$G = 0$$

►8. $H = -t^2 \times (-10)$

$$H = -1 \times t^2 \times (-10)$$

$$H = -1 \times (-10) \times t^2$$

$$H = 10t^2$$

►9. $I = 9x \times (-4)$

$$I = 9 \times x \times (-4)$$

$$I = 9 \times (-4) \times x$$

$$I = -36x$$

11 / التمرين 11

ببسط، إن أمكن، العبارات التالية :

►1. $A = -10 \times 8y$

$A = -10 \times 8 \times y$

$A = -80y$

►2. $B = -t \times 4$

$B = -1 \times t \times 4$

$B = -1 \times 4 \times t$

$B = -4t$

►3. $C = -8y^2 \times 9$

$C = -8 \times y^2 \times 9$

$C = -8 \times 9 \times y^2$

$C = -72y^2$

►4. $D = 5t \times 9t$

$D = 5 \times t \times 9 \times t$

$D = 5 \times 9 \times t \times t$

$D = 45t^2$

►5. $E = a^2 \times 8$

$E = 8 \times a^2$

$E = 8a^2$

►6. $F = 6x \times (-3x)$

$F = 6 \times x \times (-3) \times x$

$F = 6 \times (-3) \times x \times x$

$F = -18x^2$

►7. $G = 7t - 5t^2$

$G = -5t^2 + 7t$

►8. $H = 7y^2 \times (-9)$

$H = 7 \times y^2 \times (-9)$

$H = 7 \times (-9) \times y^2$

$H = -63y^2$

►9. $I = -7x^2 + 7x^2$

$I = (-7 + 7) x^2$

$I = 0$

12 / التمرين 12

ببسط، إن أمكن، العبارات التالية :

►1. $A = 3a + 9a$

$A = (3 + 9) a$

$A = 12a$

►2. $B = 4x^2 + 3x^2$

$B = (4 + 3) x^2$

$B = 7x^2$

►3. $C = 7y^2 - 6y$

►4. $D = -10x \times x$

$D = -10 \times x \times x$

$D = -10x^2$

►5. $E = 9x^2 - 6x^2$

$E = (9 - 6) x^2$

$E = 3x^2$

►6. $F = -5x^2 - (-6x^2)$

$F = (-5 + 6) x^2$

$F = x^2$

►7. $G = -3t + 9t$

$G = (-3 + 9) t$

$G = 6t$

►8. $H = -y - 3y$

$H = (-1 - 3) y$

$H = -4y$

►9. $I = 4x^2 - (-9x^2)$

$I = (4 + 9) x^2$

$I = 13x^2$

13 / التمرين 13

ببسط، إن أمكن، العبارات التالية :

►1. $A = -5t^2 \times (-7)$

$A = -5 \times t^2 \times (-7)$

$A = -5 \times (-7) \times t^2$

$A = 35t^2$

►2. $B = 2a \times (-4a)$

$B = 2 \times a \times (-4) \times a$

$B = 2 \times (-4) \times a \times a$

$B = -8a^2$

►3. $C = 10y \times 10$

$C = 10 \times y \times 10$

$C = 10 \times 10 \times y$

$C = 100y$

►4. $D = -3 \times 2x$

$$D = -3 \times 2 \times x$$

$$D = -6x$$

►5. $E = -3a^2 \times (-10)$

$$E = -3 \times a^2 \times (-10)$$

$$E = -3 \times (-10) \times a^2$$

$$E = 30a^2$$

►6. $F = 10x \times 7$

$$F = 10 \times x \times 7$$

$$F = 10 \times 7 \times x$$

$$F = 70x$$

►7. $G = 10y - (-9y)$

$$G = (10 + 9)y$$

$$G = 19y$$

►8. $H = -7 \times 5t^2$

$$H = -7 \times 5 \times t^2$$

$$H = -35t^2$$

►9. $I = 6y^2 \times (-5)$

$$I = 6 \times y^2 \times (-5)$$

$$I = 6 \times (-5) \times y^2$$

$$I = -30y^2$$

14 / ١٤ / ١٤

بسّط، إن أمكن، العبارات التالية :

►1. $A = -9y - (-7y)$

$$A = (-9 + 7)y$$

$$A = -2y$$

►2. $B = -8 \times 3x^2$

$$B = -8 \times 3 \times x^2$$

$$B = -24x^2$$

►3. $C = 10a \times (-7a)$

$$C = 10 \times a \times (-7) \times a$$

$$C = 10 \times (-7) \times a \times a$$

$$C = -70a^2$$

►4. $D = -8x^2 + 10x^2$

$$D = (-8 + 10)x^2$$

$$D = 2x^2$$

►5. $E = -3x^2 + 5x^2$

$$E = (-3 + 5)x^2$$

$$E = 2x^2$$

►6. $F = 9 \times (-x^2)$

$$F = 9 \times (-1) \times x^2$$

$$F = -9x^2$$

►7. $G = 7x - (-5x)$

$$G = (7 + 5)x$$

$$G = 12x$$

►8. $H = -2x^2 + 7$

►9. $I = 1 \times t$

$$I = t$$

15 / ١٥ / ١٥

بسّط، إن أمكن، العبارات التالية :

►1. $A = -9x \times (-6)$

$$A = -9 \times x \times (-6)$$

$$A = -9 \times (-6) \times x$$

$$A = 54x$$

►2. $B = x^2 \times (-6)$

$$B = -6 \times x^2$$

$$B = -6x^2$$

►3. $C = 9a + 5a$

$$C = (9 + 5)a$$

$$C = 14a$$

►4. $D = 10 \times (-9t)$

$$D = 10 \times (-9) \times t$$

$$D = -90t$$

►5. $E = 7a^2 \times 7$

$$E = 7 \times a^2 \times 7$$

$$E = 7 \times 7 \times a^2$$

$$E = 49a^2$$

►6. $F = -4x - 3x$

$$F = (-4 - 3)x$$

$$F = -7x$$

►7. $G = -t - (-3t)$

$$G = (-1 + 3)t$$

$$G = 2t$$

►8. $H = -2x^2 - 9x^2$

$$H = (-2 - 9)x^2$$

$$H = -11x^2$$

►9. $I = x^2 - (-7x^2)$

$$I = (1 + 7)x^2$$

$$I = 8x^2$$

ببسط، إن أمكن، العبارات التالية :

►1. $A = -4 \times 4a$

$A = -4 \times 4 \times a$

$A = -16a$

►2. $B = -5y^2 + 6y^2$

$B = (-5 + 6)y^2$

$B = y^2$

►3. $C = 7y - 6y$

$C = (7 - 6)y$

$C = y$

►4. $D = -8a - (-10a)$

$D = (-8 + 10)a$

$D = 2a$

►5. $E = -3t \times 10t$

$E = -3 \times t \times 10 \times t$

$E = -3 \times 10 \times t \times t$

$E = -30t^2$

►6. $F = 3 \times 2x^2$

$F = 3 \times 2 \times x^2$

$F = 6x^2$

►7. $G = -3t + 7t$

$G = (-3 + 7)t$

$G = 4t$

►8. $H = -10a + 9a$

$H = (-10 + 9)a$

$H = -a$

►9. $I = 6a - 7a$

$I = (6 - 7)a$

$I = -a$

ببسط، إن أمكن، العبارات التالية :

►1. $A = 8t \times 8$

$A = 8 \times t \times 8$

$A = 8 \times 8 \times t$

$A = 64t$

►2. $B = -7 \times (-3t)$

$B = -7 \times (-3) \times t$

$B = 21t$

►3. $C = -10x - 3x$

$C = (-10 - 3)x$

$C = -13x$

►4. $D = 1 \times (-9a^2)$

$D = 1 \times (-9) \times a^2$

$D = -9a^2$

►5. $E = 9 \times 4x$

$E = 9 \times 4 \times x$

$E = 36x$

►6. $F = -4y^2 \times (-10)$

$F = -4 \times y^2 \times (-10)$

$F = -4 \times (-10) \times y^2$

$F = 40y^2$

►7. $G = 4 \times (-6t)$

$G = 4 \times (-6) \times t$

$G = -24t$

►8. $H = 5x - 7$

►9. $I = 4 \times 5a^2$

$I = 4 \times 5 \times a^2$

$I = 20a^2$

ببسط، إن أمكن، العبارات التالية :

►1. $A = y^2 \times 2$

$A = 2 \times y^2$

$A = 2y^2$

►2. $B = -9y - (-4y)$

$B = (-9 + 4)y$

$B = -5y$

►3. $C = 6a^2 \times (-10)$

$C = 6 \times a^2 \times (-10)$

$C = 6 \times (-10) \times a^2$

$C = -60a^2$

►4. $D = 1 \times 5x$

$D = 1 \times 5 \times x$

$D = 5x$

►5. $E = 9t - (-2t)$

$$E = (9 + 2)t$$

$$E = 11t$$

►6. $F = 9x - 2x$

$$F = (9 - 2)x$$

$$F = 7x$$

►7. $G = 6t - 6t$

$$G = (6 - 6)t$$

$$G = 0$$

►8. $H = 7t^2 - 3$

►9. $I = -a^2 \times 9$

$$I = -1 \times a^2 \times 9$$

$$I = -1 \times 9 \times a^2$$

$$I = -9a^2$$

19 /

بسّط، إن أمكن، العبارات التالية :

►1. $A = -3a^2 \times 7$

$$A = -3 \times a^2 \times 7$$

$$A = -3 \times 7 \times a^2$$

$$A = -21a^2$$

►2. $B = -10t - (-2t)$

$$B = (-10 + 2)t$$

$$B = -8t$$

►3. $C = 6x - 3x$

$$C = (6 - 3)x$$

$$C = 3x$$

►4. $D = 6 \times (-5a^2)$

$$D = 6 \times (-5) \times a^2$$

$$D = -30a^2$$

►5. $E = 6a - (-3a)$

$$E = (6 + 3)a$$

$$E = 9a$$

►6. $F = -9t^2 - 3t^2$

$$F = (-9 - 3)t^2$$

$$F = -12t^2$$

►7. $G = 7a^2 \times (-1)$

$$G = 7 \times a^2 \times (-1)$$

$$G = 7 \times (-1) \times a^2$$

$$G = -7a^2$$

►8. $H = 10y - (-9y^2)$

$$H = 9y^2 + 10y$$

►9. $I = -10y \times (-6y)$

$$I = -10 \times y \times (-6) \times y$$

$$I = -10 \times (-6) \times y \times y$$

$$I = 60y^2$$

1 / ١٤ / 1

ببسط العبارات الحرفية التالية :

$$A = -(10x - 5) - 8x + 9$$

$$A = -10x + 5 - 8x + 9$$

$$A = -10x - 8x + 5 + 9$$

$$A = (-10 - 8)x + 14$$

$$A = -18x + 14$$

$$B = 9x - (-3x - 10) + 2$$

$$B = 9x + 3x + 10 + 2$$

$$B = (9 + 3)x + 12$$

$$B = 12x + 12$$

$$C = (-5x + 3) + 4x + 8$$

$$C = -5x + 3 + 4x + 8$$

$$C = -5x + 4x + 3 + 8$$

$$C = (-5 + 4)x + 11$$

$$C = -x + 11$$

$$D = -8 - (10x - 6) + 8x$$

$$D = -8 - 10x + 6 + 8x$$

$$D = -10x + 8x - 8 + 6$$

$$D = (-10 + 8)x - 2$$

$$D = -2x - 2$$

$$E = (10x - 9) - 8x - 4$$

$$E = 10x - 9 - 8x - 4$$

$$E = 10x - 8x - 9 - 4$$

$$E = (10 - 8)x - 13$$

$$E = 2x - 13$$

$$F = -9 + 7x - (4x + 4)$$

$$F = 7x - 9 - (4x + 4)$$

$$F = 7x - 9 - 4x - 4$$

$$F = 7x - 4x - 9 - 4$$

$$F = (7 - 4)x - 13$$

$$F = 3x - 13$$

2 / ١٤ / 2

ببسط العبارات الحرفية التالية :

$$A = 8 - (6x + 8) - 3x$$

$$A = 8 - 6x - 8 - 3x$$

$$A = -6x - 3x + 8 - 8$$

$$A = (-6 - 3)x$$

$$A = -9x$$

$$B = -10 - (-9x - 5) + 3x$$

$$B = -10 + 9x + 5 + 3x$$

$$B = 9x + 3x - 10 + 5$$

$$B = (9 + 3)x - 5$$

$$B = 12x - 5$$

$$C = -(2x + 3) + 6x - 2$$

$$C = -2x - 3 + 6x - 2$$

$$C = -2x + 6x - 3 - 2$$

$$C = (-2 + 6)x - 5$$

$$C = 4x - 5$$

$$D = -9 + (-9x - 8) - 10x$$

$$D = -9 - 9x - 8 - 10x$$

$$D = -9x - 10x - 9 - 8$$

$$D = (-9 - 10)x - 17$$

$$D = -19x - 17$$

$$E = -(-5x - 5) - 9 + 3x$$

$$E = 5x + 5 - 9 + 3x$$

$$E = 5x + 3x + 5 - 9$$

$$E = (5 + 3)x - 4$$

$$E = 8x - 4$$

$$F = -6x + (3x - 6) - 6$$

$$F = -6x + 3x - 6 - 6$$

$$F = (-6 + 3)x - 12$$

$$F = -3x - 12$$

3 / ١٤ / 3

ببسط العبارات الحرفية التالية :

$$A = -5 - (6x + 10) + 8x$$

$$A = -5 - 6x - 10 + 8x$$

$$A = -6x + 8x - 5 - 10$$

$$A = (-6 + 8)x - 15$$

$$A = 2x - 15$$

$$B = 9x - (-6x + 2) + 5$$

$$B = 9x + 6x - 2 + 5$$

$$B = (9 + 6)x + 3$$

$$B = 15x + 3$$

$$C = 10 + (-7x - 8) + 7x$$

$$C = 10 - 7x - 8 + 7x$$

$$C = -7x + 7x + 10 - 8$$

$$C = (-7 + 7)x + 2$$

$$C = 2$$

$$D = -6 - (-7x - 4) + 4x$$

$$D = -6 + 7x + 4 + 4x$$

$$D = 7x + 4x - 6 + 4$$

$$D = (7 + 4)x - 2$$

$$D = 11x - 2$$

$$E = -(-5x - 5) + 8 + 8x$$

$$E = 5x + 5 + 8 + 8x$$

$$E = 5x + 8x + 5 + 8$$

$$E = (5 + 8)x + 13$$

$$E = 13x + 13$$

$$F = -9x + 7 + (-4x - 9)$$

$$F = -9x + 7 - 4x - 9$$

$$F = -9x - 4x + 7 - 9$$

$$F = (-9 - 4)x - 2$$

$$F = -13x - 2$$

4 / تمرين

بسطّ العبارات الحرفية التالية :

$$A = -(9x - 8) + 7x + 8$$

$$A = -9x + 8 + 7x + 8$$

$$A = -9x + 7x + 8 + 8$$

$$A = (-9 + 7)x + 16$$

$$A = -2x + 16$$

$$B = 10 - 9x + (7x - 1)$$

$$B = -9x + 10 + 7x - 1$$

$$B = -9x + 7x + 10 - 1$$

$$B = (-9 + 7)x + 9$$

$$B = -2x + 9$$

$$C = -(-3x - 2) - 10 + 5x$$

$$C = 3x + 2 - 10 + 5x$$

$$C = 3x + 5x + 2 - 10$$

$$C = (3 + 5)x - 8$$

$$C = 8x - 8$$

$$D = -(x + 7) + 5 + 8x$$

$$D = -x - 7 + 5 + 8x$$

$$D = -x + 8x - 7 + 5$$

$$D = (-1 + 8)x - 2$$

$$D = 7x - 2$$

$$E = -8x + (10x + 3) + 5$$

$$E = -8x + 10x + 3 + 5$$

$$E = (-8 + 10)x + 8$$

$$E = 2x + 8$$

$$F = 6 + 3x - (-6x + 7)$$

$$F = 3x + 6 - (-6x + 7)$$

$$F = 3x + 6 + 6x - 7$$

$$F = 3x + 6x + 6 - 7$$

$$F = (3 + 6)x - 1$$

$$F = 9x - 1$$

5 / تمرين

بسطّ العبارات الحرفية التالية :

$$A = 6 + 3x - (8x - 2)$$

$$A = 3x + 6 - (8x - 2)$$

$$A = 3x + 6 - 8x + 2$$

$$A = 3x - 8x + 6 + 2$$

$$A = (3 - 8)x + 8$$

$$A = -5x + 8$$

$$B = 6 - (x + 3) + 2x$$

$$B = 6 - x - 3 + 2x$$

$$B = -x + 2x + 6 - 3$$

$$B = (-1 + 2)x + 3$$

$$B = x + 3$$

$$C = -5 - (-x - 7) + 2x$$

$$C = -5 + x + 7 + 2x$$

$$C = x + 2x - 5 + 7$$

$$C = (1 + 2)x + 2$$

$$C = 3x + 2$$

$$D = 9x + (-5x + 3) + 6$$

$$D = 9x - 5x + 3 + 6$$

$$D = (9 - 5)x + 9$$

$$D = 4x + 9$$

$$E = 8x + (-9x + 3) + 6$$

$$E = 8x - 9x + 3 + 6$$

$$E = (8 - 9)x + 9$$

$$E = -x + 9$$

$$F = -(5x + 2) - 4x + 8$$

$$F = -5x - 2 - 4x + 8$$

$$F = -5x - 4x - 2 + 8$$

$$F = (-5 - 4)x + 6$$

$$F = -9x + 6$$

6 / ٦ / ٦

بسط العبارات الحرفية التالية :

$$A = 5x + 6 - (5x - 4)$$

$$A = 5x + 6 - 5x + 4$$

$$A = 5x - 5x + 6 + 4$$

$$A = (5 - 5)x + 10$$

$$A = 10$$

$$B = -(4x + 6) - 7 + 6x$$

$$B = -4x - 6 - 7 + 6x$$

$$B = -4x + 6x - 6 - 7$$

$$B = (-4 + 6)x - 13$$

$$B = 2x - 13$$

$$C = -7 - (-5x - 2) + 5x$$

$$C = -7 + 5x + 2 + 5x$$

$$C = 5x + 5x - 7 + 2$$

$$C = (5 + 5)x - 5$$

$$C = 10x - 5$$

$$D = -9x - 8 + (-9x + 6)$$

$$D = -9x - 8 - 9x + 6$$

$$D = -9x - 9x - 8 + 6$$

$$D = (-9 - 9)x - 2$$

$$D = -18x - 2$$

$$E = 10x - (6x + 2) - 10$$

$$E = 10x - 6x - 2 - 10$$

$$E = (10 - 6)x - 12$$

$$E = 4x - 12$$

$$F = (-2x - 6) - 8 - 9x$$

$$F = -2x - 6 - 9x - 8$$

$$F = -2x - 9x - 6 - 8$$

$$F = (-2 - 9)x - 14$$

$$F = -11x - 14$$

7 / ٧ / ٧

بسط العبارات الحرفية التالية :

$$A = 8 - (-10x - 10) - 6x$$

$$A = 8 + 10x + 10 - 6x$$

$$A = 10x - 6x + 8 + 10$$

$$A = (10 - 6)x + 18$$

$$A = 4x + 18$$

$$B = (3x - 7) - 7x + 4$$

$$B = 3x - 7 - 7x + 4$$

$$B = 3x - 7x - 7 + 4$$

$$B = (3 - 7)x - 3$$

$$B = -4x - 3$$

$$C = -6 - 8x + (10x + 8)$$

$$C = -8x - 6 + 10x + 8$$

$$C = -8x + 10x - 6 + 8$$

$$C = (-8 + 10)x + 2$$

$$C = 2x + 2$$

$$D = -(7x - 3) + 3 + 7x$$

$$D = -7x + 3 + 3 + 7x$$

$$D = -7x + 7x + 3 + 3$$

$$D = (-7 + 7)x + 6$$

$$D = 6$$

$$E = 8 - (-5x - 9) + 6x$$

$$E = 8 + 5x + 9 + 6x$$

$$E = 5x + 6x + 8 + 9$$

$$E = (5 + 6)x + 17$$

$$E = 11x + 17$$

$$F = -8 + 5x - (2x + 5)$$

$$F = 5x - 8 - (2x + 5)$$

$$F = 5x - 8 - 2x - 5$$

$$F = 5x - 2x - 8 - 5$$

$$F = (5 - 2)x - 13$$

$$F = 3x - 13$$

8 / ٨

بسط العبارات الحرفية التالية :

$$A = -2 + (-8x + 1) + 6x$$

$$A = -2 - 8x + 1 + 6x$$

$$A = -8x + 6x - 2 + 1$$

$$A = (-8 + 6)x - 1$$

$$A = -2x - 1$$

$$B = -(7x + 9) + 3 + 8x$$

$$B = -7x - 9 + 3 + 8x$$

$$B = -7x + 8x - 9 + 3$$

$$B = (-7 + 8)x - 6$$

$$B = x - 6$$

$$C = -(-2x - 2) - 6x + 2$$

$$C = 2x + 2 - 6x + 2$$

$$C = 2x - 6x + 2 + 2$$

$$C = (2 - 6)x + 4$$

$$C = -4x + 4$$

$$D = 8x + (-10x + 8) - 2$$

$$D = 8x - 10x + 8 - 2$$

$$D = (8 - 10)x + 6$$

$$D = -2x + 6$$

$$E = -2x - (6x - 3) - 6$$

$$E = -2x - 6x + 3 - 6$$

$$E = (-2 - 6)x - 3$$

$$E = -8x - 3$$

$$F = -(-9x - 2) + 10 - 2x$$

$$F = 9x + 2 + 10 - 2x$$

$$F = 9x - 2x + 2 + 10$$

$$F = (9 - 2)x + 12$$

$$F = 7x + 12$$

9 / ٩

بسط العبارات الحرفية التالية :

$$A = -8x - 7 - (4x - 6)$$

$$A = -8x - 7 - 4x + 6$$

$$A = -8x - 4x - 7 + 6$$

$$A = (-8 - 4)x - 1$$

$$A = -12x - 1$$

$$B = (2x + 10) + 6x + 3$$

$$B = 2x + 10 + 6x + 3$$

$$B = 2x + 6x + 10 + 3$$

$$B = (2 + 6)x + 13$$

$$B = 8x + 13$$

$$C = -(10x + 3) + 6x - 9$$

$$C = -10x - 3 + 6x - 9$$

$$C = -10x + 6x - 3 - 9$$

$$C = (-10 + 6)x - 12$$

$$C = -4x - 12$$

$$D = 9 - (2x - 7) + 7x$$

$$D = 9 - 2x + 7 + 7x$$

$$D = -2x + 7x + 9 + 7$$

$$D = (-2 + 7)x + 16$$

$$D = 5x + 16$$

$$E = 8x + 7 - (-8x + 2)$$

$$E = 8x + 7 + 8x - 2$$

$$E = 8x + 8x + 7 - 2$$

$$E = (8 + 8)x + 5$$

$$E = 16x + 5$$

$$F = -9x + (4x + 6) - 6$$

$$F = -9x + 4x + 6 - 6$$

$$F = (-9 + 4)x$$

$$F = -5x$$

10 / ١٠

بسّط العبارات الحرفية التالية :

$$A = 5 - (7x + 2) + 4x$$

$$A = 5 - 7x - 2 + 4x$$

$$A = -7x + 4x + 5 - 2$$

$$A = (-7 + 4)x + 3$$

$$A = -3x + 3$$

$$B = -9 - 4x + (-2x + 10)$$

$$B = -4x - 9 - 2x + 10$$

$$B = -4x - 2x - 9 + 10$$

$$B = (-4 - 2)x + 1$$

$$B = -6x + 1$$

$$C = 9x - (10x + 8) + 4$$

$$C = 9x - 10x - 8 + 4$$

$$C = (9 - 10)x - 4$$

$$C = -x - 4$$

$$D = -5 + 2x - (5x + 3)$$

$$D = 2x - 5 - (5x + 3)$$

$$D = 2x - 5 - 5x - 3$$

$$D = 2x - 5x - 5 - 3$$

$$D = (2 - 5)x - 8$$

$$D = -3x - 8$$

$$E = -10x + 6 - (-2x - 9)$$

$$E = -10x + 6 + 2x + 9$$

$$E = -10x + 2x + 6 + 9$$

$$E = (-10 + 2)x + 15$$

$$E = -8x + 15$$

$$F = (4x - 9) - 5 + 3x$$

$$F = 4x - 9 + 3x - 5$$

$$F = 4x + 3x - 9 - 5$$

$$F = (4 + 3)x - 14$$

$$F = 7x - 14$$

11 / ١١

بسّط العبارات الحرفية التالية :

$$A = -(-7x - 2) + 10x + 4$$

$$A = 7x + 2 + 10x + 4$$

$$A = 7x + 10x + 2 + 4$$

$$A = (7 + 10)x + 6$$

$$A = 17x + 6$$

$$B = 10 - (2x + 8) - 9x$$

$$B = 10 - 2x - 8 - 9x$$

$$B = -2x - 9x + 10 - 8$$

$$B = (-2 - 9)x + 2$$

$$B = -11x + 2$$

$$C = 10 - 5x - (5x - 7)$$

$$C = -5x + 10 - (5x - 7)$$

$$C = -5x + 10 - 5x + 7$$

$$C = -5x - 5x + 10 + 7$$

$$C = (-5 - 5)x + 17$$

$$C = -10x + 17$$

$$D = -6x + 4 + (-7x - 3)$$

$$D = -6x + 4 - 7x - 3$$

$$D = -6x - 7x + 4 - 3$$

$$D = (-6 - 7)x + 1$$

$$D = -13x + 1$$

$$E = (-4x - 1) - 8 - 2x$$

$$E = -4x - 1 - 2x - 8$$

$$E = -4x - 2x - 1 - 8$$

$$E = (-4 - 2)x - 9$$

$$E = -6x - 9$$

$$F = 5x - (10x - 1) + 10$$

$$F = 5x - 10x + 1 + 10$$

$$F = (5 - 10)x + 11$$

$$F = -5x + 11$$

12 /

بسط العبارات الحرفية التالية :

$$A = -9x + (-9x - 1) + 5$$

$$A = -9x - 9x - 1 + 5$$

$$A = (-9 - 9)x + 4$$

$$A = -18x + 4$$

$$B = -(-2x - 7) + 3x - 4$$

$$B = 2x + 7 + 3x - 4$$

$$B = 2x + 3x + 7 - 4$$

$$B = (2 + 3)x + 3$$

$$B = 5x + 3$$

$$C = -3 - 7x - (5x + 9)$$

$$C = -7x - 3 - (5x + 9)$$

$$C = -7x - 3 - 5x - 9$$

$$C = -7x - 5x - 3 - 9$$

$$C = (-7 - 5)x - 12$$

$$C = -12x - 12$$

$$D = -6 - (-10x + 5) + 4x$$

$$D = -6 + 10x - 5 + 4x$$

$$D = 10x + 4x - 6 - 5$$

$$D = (10 + 4)x - 11$$

$$D = 14x - 11$$

$$E = -(10x - 4) - 3 + 5x$$

$$E = -10x + 4 - 3 + 5x$$

$$E = -10x + 5x + 4 - 3$$

$$E = (-10 + 5)x + 1$$

$$E = -5x + 1$$

$$F = -5x + 8 + (-10x - 3)$$

$$F = -5x + 8 - 10x - 3$$

$$F = -5x - 10x + 8 - 3$$

$$F = (-5 - 10)x + 5$$

$$F = -15x + 5$$

13 /

بسط العبارات الحرفية التالية :

$$A = -2x + 8 - (-10x - 3)$$

$$A = -2x + 8 + 10x + 3$$

$$A = -2x + 10x + 8 + 3$$

$$A = (-2 + 10)x + 11$$

$$A = 8x + 11$$

$$B = 6x - 10 + (9x - 5)$$

$$B = 6x - 10 + 9x - 5$$

$$B = 6x + 9x - 10 - 5$$

$$B = (6 + 9)x - 15$$

$$B = 15x - 15$$

$$C = -(10x + 9) + 5 + 4x$$

$$C = -10x - 9 + 5 + 4x$$

$$C = -10x + 4x - 9 + 5$$

$$C = (-10 + 4)x - 4$$

$$C = -6x - 4$$

$$D = 6 + (8x - 1) - 6x$$

$$D = 6 + 8x - 1 - 6x$$

$$D = 8x - 6x + 6 - 1$$

$$D = (8 - 6)x + 5$$

$$D = 2x + 5$$

$$E = -9x - (x + 5) + 4$$

$$E = -9x - x - 5 + 4$$

$$E = (-9 - 1)x - 1$$

$$E = -10x - 1$$

$$F = -(-2x - 2) - 6 - 5x$$

$$F = 2x + 2 - 6 - 5x$$

$$F = 2x - 5x + 2 - 6$$

$$F = (2 - 5) x - 4$$

$$F = -3x - 4$$

14 /

بسط العبارات الحرفية التالية :

$$A = (-3x + 4) - 7x + 5$$

$$A = -3x + 4 - 7x + 5$$

$$A = -3x - 7x + 4 + 5$$

$$A = (-3 - 7) x + 9$$

$$A = -10x + 9$$

$$B = -4 - (4x + 9) + 6x$$

$$B = -4 - 4x - 9 + 6x$$

$$B = -4x + 6x - 4 - 9$$

$$B = (-4 + 6) x - 13$$

$$B = 2x - 13$$

$$C = 8x + (8x + 3) + 7$$

$$C = 8x + 8x + 3 + 7$$

$$C = (8 + 8) x + 10$$

$$C = 16x + 10$$

$$D = 7x - 10 - (6x + 4)$$

$$D = 7x - 10 - 6x - 4$$

$$D = 7x - 6x - 10 - 4$$

$$D = (7 - 6) x - 14$$

$$D = x - 14$$

$$E = -(8x + 2) + 10x + 2$$

$$E = -8x - 2 + 10x + 2$$

$$E = -8x + 10x - 2 + 2$$

$$E = (-8 + 10) x$$

$$E = 2x$$

$$F = 6 - (6x + 8) + 3x$$

$$F = 6 - 6x - 8 + 3x$$

$$F = -6x + 3x + 6 - 8$$

$$F = (-6 + 3) x - 2$$

$$F = -3x - 2$$

15 /

بسط العبارات الحرفية التالية :

$$A = -(-x + 4) + 5 + 9x$$

$$A = x - 4 + 5 + 9x$$

$$A = x + 9x - 4 + 5$$

$$A = (1 + 9) x + 1$$

$$A = 10x + 1$$

$$B = -5x - 3 - (-6x + 4)$$

$$B = -5x - 3 + 6x - 4$$

$$B = -5x + 6x - 3 - 4$$

$$B = (-5 + 6) x - 7$$

$$B = x - 7$$

$$C = (-3x - 4) + 6 + 8x$$

$$C = -3x - 4 + 8x + 6$$

$$C = -3x + 8x - 4 + 6$$

$$C = (-3 + 8) x + 2$$

$$C = 5x + 2$$

$$D = 7 - (-7x - 2) - 8x$$

$$D = 7 + 7x + 2 - 8x$$

$$D = 7x - 8x + 7 + 2$$

$$D = (7 - 8) x + 9$$

$$D = -x + 9$$

$$E = -10 - 4x + (6x + 1)$$

$$E = -4x - 10 + 6x + 1$$

$$E = -4x + 6x - 10 + 1$$

$$E = (-4 + 6) x - 9$$

$$E = 2x - 9$$

$$F = -9x - (5x - 7) + 10$$

$$F = -9x - 5x + 7 + 10$$

$$F = (-9 - 5) x + 17$$

$$F = -14x + 17$$

ببسط العبارات الحرفية التالية :

$$A = -(-2x + 2) - 4 - 9x$$

$$A = 2x - 2 - 4 - 9x$$

$$A = 2x - 9x - 2 - 4$$

$$A = (2 - 9)x - 6$$

$$A = -7x - 6$$

$$B = (4x + 9) + 8 + 10x$$

$$B = 4x + 9 + 10x + 8$$

$$B = 4x + 10x + 9 + 8$$

$$B = (4 + 10)x + 17$$

$$B = 14x + 17$$

$$C = -4x + (3x + 7) + 3$$

$$C = -4x + 3x + 7 + 3$$

$$C = (-4 + 3)x + 10$$

$$C = -x + 10$$

$$D = -2 + 8x - (3x + 2)$$

$$D = 8x - 2 - (3x + 2)$$

$$D = 8x - 2 - 3x - 2$$

$$D = 8x - 3x - 2 - 2$$

$$D = (8 - 3)x - 4$$

$$D = 5x - 4$$

$$E = 7 + 9x - (9x + 6)$$

$$E = 9x + 7 - (9x + 6)$$

$$E = 9x + 7 - 9x - 6$$

$$E = 9x - 9x + 7 - 6$$

$$E = (9 - 9)x + 1$$

$$E = 1$$

$$F = -8 - (-7x - 7) + 2x$$

$$F = -8 + 7x + 7 + 2x$$

$$F = 7x + 2x - 8 + 7$$

$$F = (7 + 2)x - 1$$

$$F = 9x - 1$$

ببسط العبارات الحرفية التالية :

$$A = -4x - (-4x - 3) - 4$$

$$A = -4x + 4x + 3 - 4$$

$$A = (-4 + 4)x - 1$$

$$A = -1$$

$$B = 10x + (-9x - 5) + 2$$

$$B = 10x - 9x - 5 + 2$$

$$B = (10 - 9)x - 3$$

$$B = x - 3$$

$$C = (-7x + 5) - 3 - 3x$$

$$C = -7x + 5 - 3x - 3$$

$$C = -7x - 3x + 5 - 3$$

$$C = (-7 - 3)x + 2$$

$$C = -10x + 2$$

$$D = -(-4x + 9) + 10x + 10$$

$$D = 4x - 9 + 10x + 10$$

$$D = 4x + 10x - 9 + 10$$

$$D = (4 + 10)x + 1$$

$$D = 14x + 1$$

$$E = 4x - 10 - (6x + 4)$$

$$E = 4x - 10 - 6x - 4$$

$$E = 4x - 6x - 10 - 4$$

$$E = (4 - 6)x - 14$$

$$E = -2x - 14$$

$$F = 8x - (10x + 9) - 3$$

$$F = 8x - 10x - 9 - 3$$

$$F = (8 - 10)x - 12$$

$$F = -2x - 12$$

ببسط العبارات الحرفية التالية :

$$A = -8 - 3x - (x - 4)$$

$$A = -3x - 8 - (x - 4)$$

$$A = -3x - 8 - x + 4$$

$$A = -3x - x - 8 + 4$$

$$A = (-3 - 1)x - 4$$

$$A = -4x - 4$$

$$B = -(-x + 6) + 4x + 4$$

$$B = x - 6 + 4x + 4$$

$$B = x + 4x - 6 + 4$$

$$B = (1 + 4)x - 2$$

$$B = 5x - 2$$

$$C = 2x + (8x + 6) - 10$$

$$C = 2x + 8x + 6 - 10$$

$$C = (2 + 8)x - 4$$

$$C = 10x - 4$$

$$D = (x - 4) + 8 - 4x$$

$$D = x - 4 - 4x + 8$$

$$D = x - 4x - 4 + 8$$

$$D = (1 - 4)x + 4$$

$$D = -3x + 4$$

$$E = 8 - (-3x - 7) + 5x$$

$$E = 8 + 3x + 7 + 5x$$

$$E = 3x + 5x + 8 + 7$$

$$E = (3 + 5)x + 15$$

$$E = 8x + 15$$

$$F = -10 + 3x - (-4x - 8)$$

$$F = 3x - 10 - (-4x - 8)$$

$$F = 3x - 10 + 4x + 8$$

$$F = 3x + 4x - 10 + 8$$

$$F = (3 + 4)x - 2$$

$$F = 7x - 2$$

19 / ١٩

بسط العبارات الحرفية التالية :

$$A = -9 - (4x - 4) - 4x$$

$$A = -9 - 4x + 4 - 4x$$

$$A = -4x - 4x - 9 + 4$$

$$A = (-4 - 4)x - 5$$

$$A = -8x - 5$$

$$B = -(10x - 8) - 2x - 9$$

$$B = -10x + 8 - 2x - 9$$

$$B = -10x - 2x + 8 - 9$$

$$B = (-10 - 2)x - 1$$

$$B = -12x - 1$$

$$C = -2x - 4 - (3x + 10)$$

$$C = -2x - 4 - 3x - 10$$

$$C = -2x - 3x - 4 - 10$$

$$C = (-2 - 3)x - 14$$

$$C = -5x - 14$$

$$D = -7 + (-6x - 9) + 7x$$

$$D = -7 - 6x - 9 + 7x$$

$$D = -6x + 7x - 7 - 9$$

$$D = (-6 + 7)x - 16$$

$$D = x - 16$$

$$E = (3x + 6) + 3 - 4x$$

$$E = 3x + 6 - 4x + 3$$

$$E = 3x - 4x + 6 + 3$$

$$E = (3 - 4)x + 9$$

$$E = -x + 9$$

$$F = 7 - (-5x + 10) + 5x$$

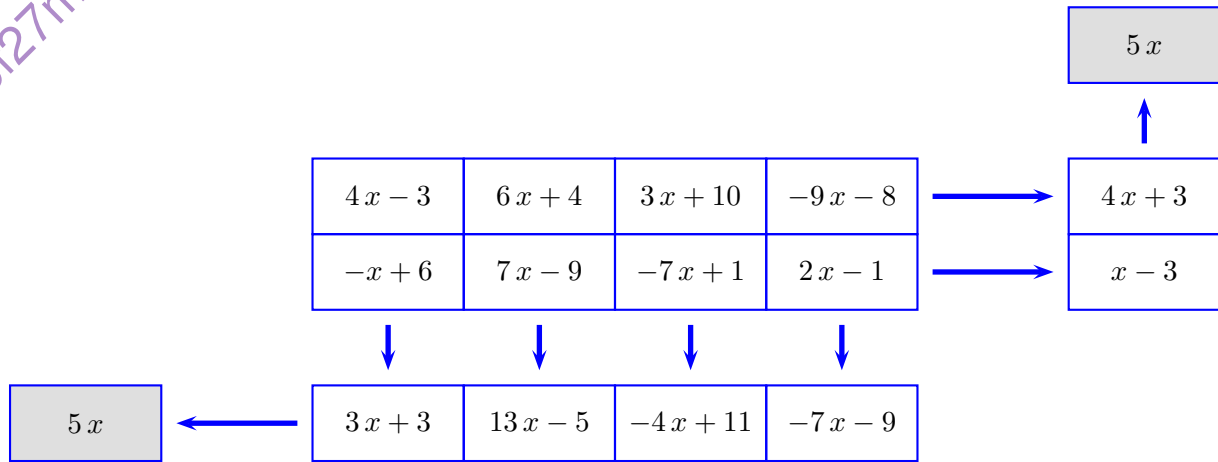
$$F = 7 + 5x - 10 + 5x$$

$$F = 5x + 5x + 7 - 10$$

$$F = (5 + 5)x - 3$$

$$F = 10x - 3$$

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



: 1 / 1

$$A = 4x - 3 - x + 6$$

$$A = 4x - x - 3 + 6$$

$$A = (4 - 1)x + 3$$

$$A = 3x + 3$$

$$B = 6x + 4 + 7x - 9$$

$$B = 6x + 7x + 4 - 9$$

$$B = (6 + 7)x - 5$$

$$B = 13x - 5$$

$$C = 3x + 10 - 7x + 1$$

$$C = 3x - 7x + 10 + 1$$

$$C = (3 - 7)x + 11$$

$$C = -4x + 11$$

$$D = -9x - 8 + 2x - 1$$

$$D = -9x + 2x - 8 - 1$$

$$D = (-9 + 2)x - 9$$

$$D = -7x - 9$$

: 1 / 1

$$E = -x + 6 + 7x - 9 - 7x + 1 + 2x - 1$$

$$E = -x + 7x - 7x + 2x + 6 - 9 + 1 - 1$$

$$E = (-1 + 7 - 7 + 2)x - 3$$

$$E = x - 3$$

$$F = 4x - 3 + 6x + 4 + 3x + 10 - 9x - 8$$

$$F = 4x + 6x + 3x - 9x - 3 + 4 + 10 - 8$$

$$F = (4 + 6 + 3 - 9)x + 3$$

$$F = 4x + 3$$

: 1 / 1

$$G = 3x + 3 + 13x - 5 - 4x + 11 - 7x - 9$$

$$G = 3x + 13x - 4x - 7x + 3 - 5 + 11 - 9$$

$$G = (3 + 13 - 4 - 7)x$$

$$G = 5x$$

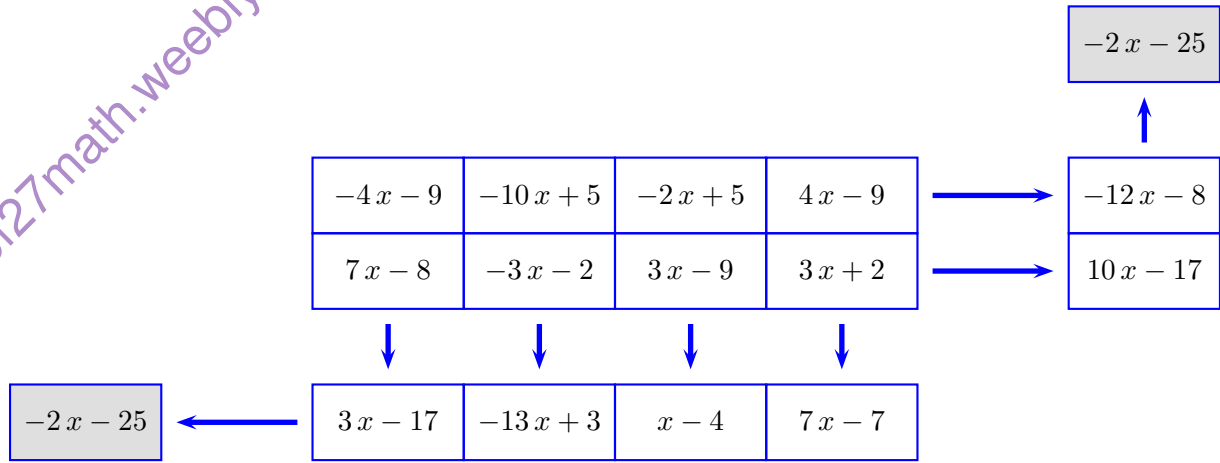
$$H = x - 3 + 4x + 3$$

$$H = x + 4x - 3 + 3$$

$$H = (1 + 4)x$$

$$H = 5x$$

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



الخطوة الأولى :

$$A = -4x - 9 + 7x - 8$$

$$A = -4x + 7x - 9 - 8$$

$$A = (-4 + 7)x - 17$$

$$A = 3x - 17$$

$$B = -10x + 5 - 3x - 2$$

$$B = -10x - 3x + 5 - 2$$

$$B = (-10 - 3)x + 3$$

$$B = -13x + 3$$

$$C = -2x + 5 + 3x - 9$$

$$C = -2x + 3x + 5 - 9$$

$$C = (-2 + 3)x - 4$$

$$C = x - 4$$

$$D = 4x - 9 + 3x + 2$$

$$D = 4x + 3x - 9 + 2$$

$$D = (4 + 3)x - 7$$

$$D = 7x - 7$$

الخطوة الثانية :

$$E = 7x - 8 - 3x - 2 + 3x - 9 + 3x + 2$$

$$E = 7x - 3x + 3x + 3x - 8 - 2 - 9 + 2$$

$$E = (7 - 3 + 3 + 3)x - 17$$

$$E = 10x - 17$$

$$F = -4x - 9 - 10x + 5 - 2x + 5 + 4x - 9$$

$$F = -4x - 10x - 2x + 4x - 9 + 5 + 5 - 9$$

$$F = (-4 - 10 - 2 + 4)x - 8$$

$$F = -12x - 8$$

الخطوة الثالثة :

$$G = 3x - 17 - 13x + 3 + x - 4 + 7x - 7$$

$$G = 3x - 13x + x + 7x - 17 + 3 - 4 - 7$$

$$G = (3 - 13 + 1 + 7)x - 25$$

$$G = -2x - 25$$

$$H = 10x - 17 - 12x - 8$$

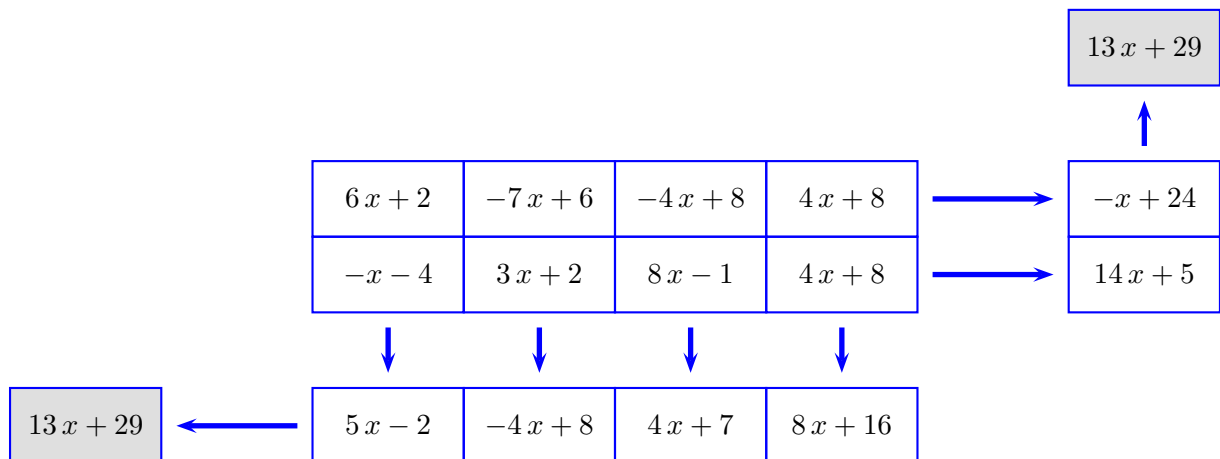
$$H = 10x - 12x - 17 - 8$$

$$H = (10 - 12)x - 25$$

$$H = -2x - 25$$

الخطوة الرابعة :

القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود. أتمم إذا علمت أن x عدد كافي وأن محتوى الخانتين الرماديتين هو نفسه.



: 11 1 1

$$A = 6x + 2 - x - 4$$

$$A = 6x - x + 2 - 4$$

$$A = (6 - 1)x - 2$$

$$A = 5x - 2$$

$$B = -7x + 6 + 3x + 2$$

$$B = -7x + 3x + 6 + 2$$

$$B = (-7 + 3)x + 8$$

$$B = -4x + 8$$

$$C = -4x + 8 + 8x - 1$$

$$C = -4x + 8x + 8 - 1$$

$$C = (-4 + 8)x + 7$$

$$C = 4x + 7$$

$$D = 4x + 8 + 4x + 8$$

$$D = 4x + 4x + 8 + 8$$

$$D = (4 + 4)x + 16$$

$$D = 8x + 16$$

: 11 1 1

$$E = -x - 4 + 3x + 2 + 8x - 1 + 4x + 8$$

$$E = -x + 3x + 8x + 4x - 4 + 2 - 1 + 8$$

$$E = (-1 + 3 + 8 + 4)x + 5$$

$$E = 14x + 5$$

$$F = 6x + 2 - 7x + 6 - 4x + 8 + 4x + 8$$

$$F = 6x - 7x - 4x + 4x + 2 + 6 + 8 + 8$$

$$F = (6 - 7 - 4 + 4)x + 24$$

$$F = -x + 24$$

: 11 1 1

$$G = 5x - 2 - 4x + 8 + 4x + 7 + 8x + 16$$

$$G = 5x - 4x + 4x + 8x - 2 + 8 + 7 + 16$$

$$G = (5 - 4 + 4 + 8)x + 29$$

$$G = 13x + 29$$

$$H = 14x + 5 - x + 24$$

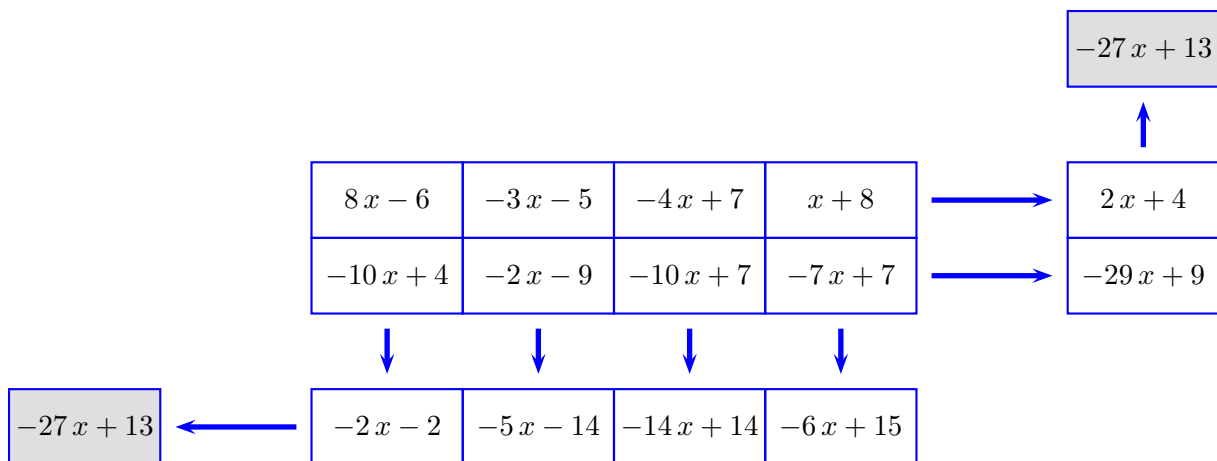
$$H = 14x - x + 5 + 24$$

$$H = (14 - 1)x + 29$$

$$H = 13x + 29$$

4 1 1 1

القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي وأن محتوي الخانتين الرماديتين هو نفسه.



: 11 1 1

$$A = 8x - 6 - 10x + 4$$

$$A = 8x - 10x - 6 + 4$$

$$A = (8 - 10)x - 2$$

$$A = -2x - 2$$

$$B = -3x - 5 - 2x - 9$$

$$B = -3x - 2x - 5 - 9$$

$$B = (-3 - 2)x - 14$$

$$B = -5x - 14$$

$$C = -4x + 7 - 10x + 7$$

$$C = -4x - 10x + 7 + 7$$

$$C = (-4 - 10)x + 14$$

$$C = -14x + 14$$

$$D = x + 8 - 7x + 7$$

$$D = x - 7x + 8 + 7$$

$$D = (1 - 7)x + 15$$

$$D = -6x + 15$$

: 11 1 1

$$E = -10x + 4 - 2x - 9 - 10x + 7 - 7x + 7$$

$$E = -10x - 2x - 10x - 7x + 4 - 9 + 7 + 7$$

$$E = (-10 - 2 - 10 - 7)x + 9$$

$$E = -29x + 9$$

$$F = 8x - 6 - 3x - 5 - 4x + 7 + x + 8$$

$$F = 8x - 3x - 4x + x - 6 - 5 + 7 + 8$$

$$F = (8 - 3 - 4 + 1)x + 4$$

$$F = 2x + 4$$

الأسئلة : ١، ٢، ٣، ٤، ٥

$$G = -2x - 2 - 5x - 14 - 14x + 14 - 6x + 15$$

$$G = -2x - 5x - 14x - 6x - 2 - 14 + 14 + 15$$

$$G = (-2 - 5 - 14 - 6)x + 13$$

$$G = -27x + 13$$

$$H = -29x + 9 + 2x + 4$$

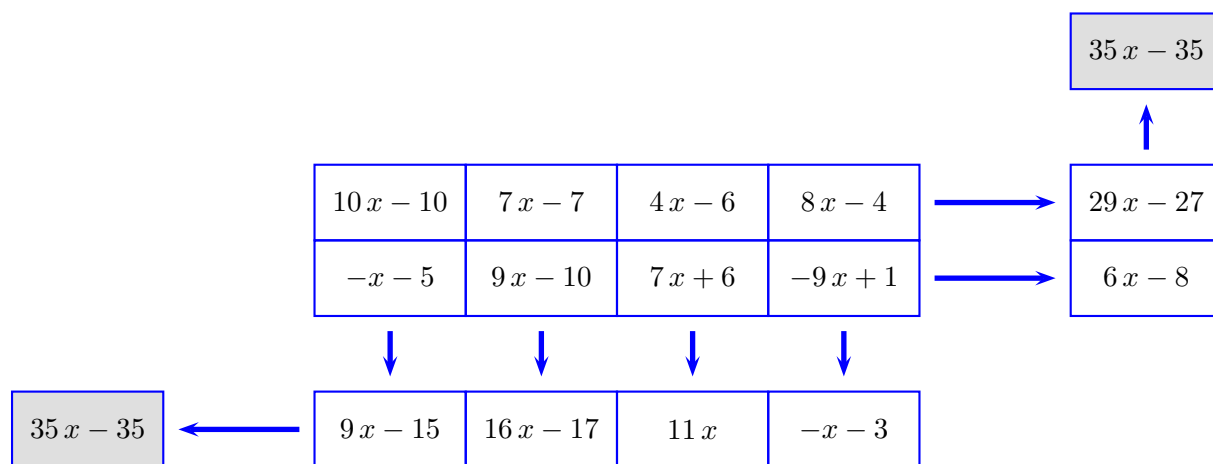
$$H = -29x + 2x + 9 + 4$$

$$H = (-29 + 2)x + 13$$

$$H = -27x + 13$$

٥ / التمرين

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي وأن محتوي الخانتين الرماديتين هو نفسه.



الأسئلة : ١، ٢، ٣، ٤، ٥

$$A = 10x - 10 - x - 5$$

$$A = 10x - x - 10 - 5$$

$$A = (10 - 1)x - 15$$

$$A = 9x - 15$$

$$B = 7x - 7 + 9x - 10$$

$$B = 7x + 9x - 7 - 10$$

$$B = (7 + 9)x - 17$$

$$B = 16x - 17$$

$$C = 4x - 6 + 7x + 6$$

$$C = 4x + 7x - 6 + 6$$

$$C = (4 + 7)x$$

$$C = 11x$$

$$D = 8x - 4 - 9x + 1$$

$$D = 8x - 9x - 4 + 1$$

$$D = (8 - 9)x - 3$$

$$D = -x - 3$$

الأسئلة : ١، ٢، ٣، ٤، ٥

$$E = -x - 5 + 9x - 10 + 7x + 6 - 9x + 1$$

$$E = -x + 9x + 7x - 9x - 5 - 10 + 6 + 1$$

$$E = (-1 + 9 + 7 - 9)x - 8$$

$$E = 6x - 8$$

$$F = 10x - 10 + 7x - 7 + 4x - 6 + 8x - 4$$

$$F = 10x + 7x + 4x + 8x - 10 - 7 - 6 - 4$$

$$F = (10 + 7 + 4 + 8)x - 27$$

$$F = 29x - 27$$

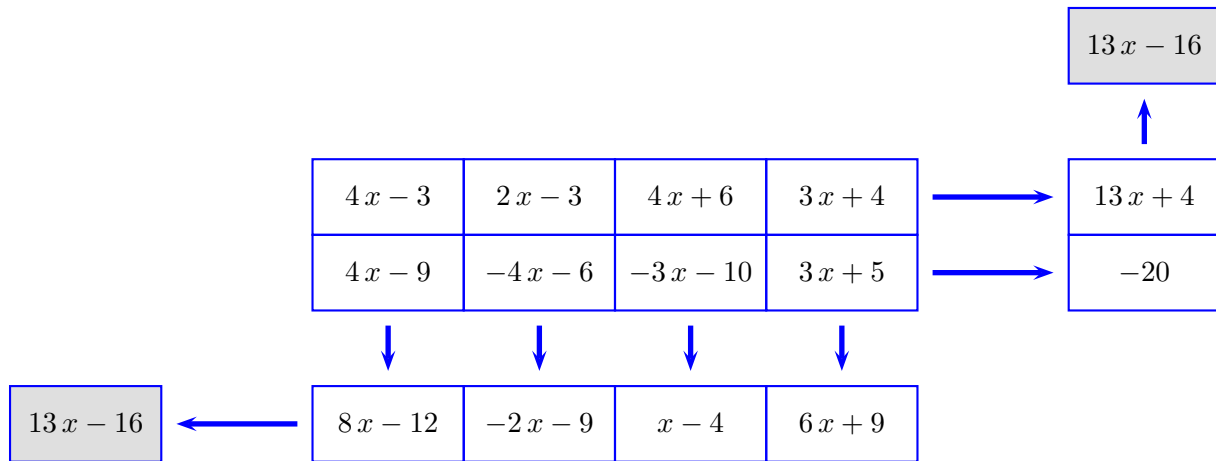
الأسئلة : ١، ٢، ٣، ٤، ٥

$$G = 35x - 35$$

$$H = 35x - 35$$

6 ㇿ ㇾ ㇽ ㇼ

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود. أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



$$A = 8x - 12$$

$$B = -2x - 9$$

$$C = x - 4$$

$$D = 6x + 9$$

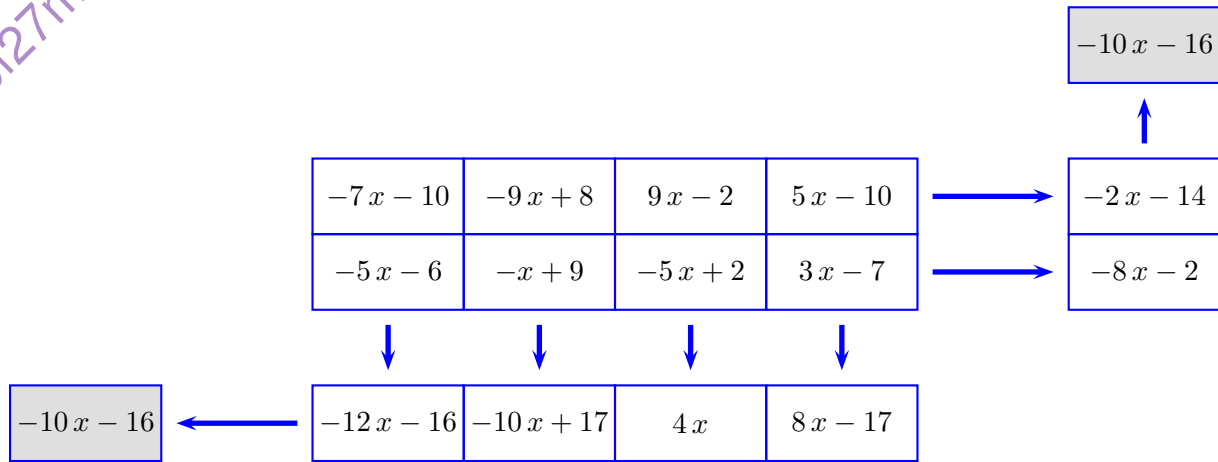
$$E = -20$$

$$F = 13x + 4$$

$$G = 13x - 16$$

$$H = 13x - 16$$

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



: ١١ ١ ١

$$A = -7x - 10 - 5x - 6$$

$$A = -7x - 5x - 10 - 6$$

$$A = (-7 - 5)x - 16$$

$$A = -12x - 16$$

$$B = -9x + 8 - x + 9$$

$$B = -9x - x + 8 + 9$$

$$B = (-9 - 1)x + 17$$

$$B = -10x + 17$$

$$C = 9x - 2 - 5x + 2$$

$$C = 9x - 5x - 2 + 2$$

$$C = (9 - 5)x$$

$$C = 4x$$

$$D = 5x - 10 + 3x - 7$$

$$D = 5x + 3x - 10 - 7$$

$$D = (5 + 3)x - 17$$

$$D = 8x - 17$$

: 1٢ ١ ١

$$E = -5x - 6 - x + 9 - 5x + 2 + 3x - 7$$

$$E = -5x - x - 5x + 3x - 6 + 9 + 2 - 7$$

$$E = (-5 - 1 - 5 + 3)x - 2$$

$$E = -8x - 2$$

$$F = -7x - 10 - 9x + 8 + 9x - 2 + 5x - 10$$

$$F = -7x - 9x + 9x + 5x - 10 + 8 - 2 - 10$$

$$F = (-7 - 9 + 9 + 5)x - 14$$

$$F = -2x - 14$$

: ١٣ ١ ١

$$G = -12x - 16 - 10x + 17 + 4x + 8x - 17$$

$$G = -12x - 10x + 4x + 8x - 16 + 17 - 17$$

$$G = (-12 - 10 + 4 + 8)x - 16$$

$$G = -10x - 16$$

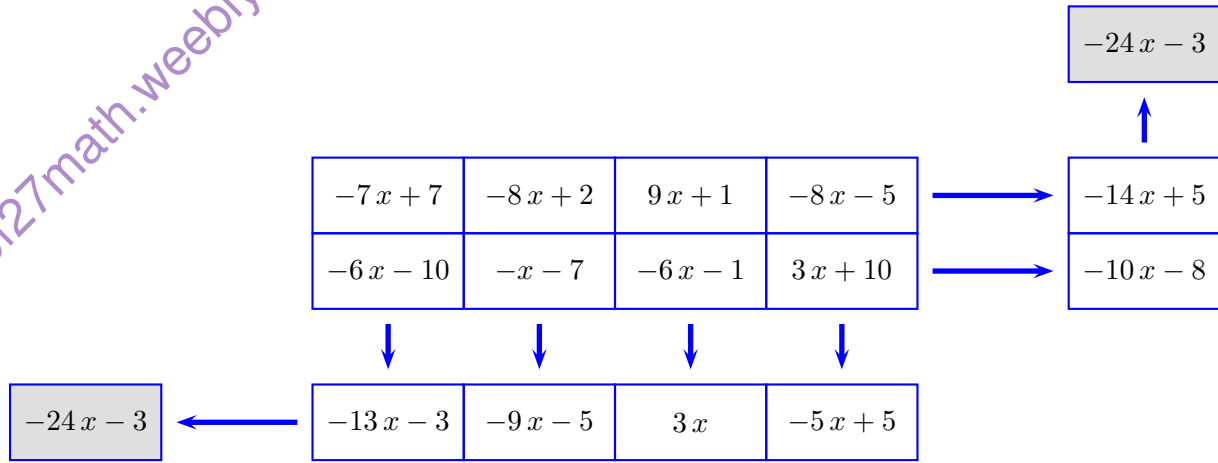
$$H = -8x - 2 - 2x - 14$$

$$H = -8x - 2x - 2 - 14$$

$$H = (-8 - 2)x - 16$$

$$H = -10x - 16$$

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



الخطوة الأولى :

$$\begin{aligned} A &= -7x + 7 - 6x - 10 \\ A &= -7x - 6x + 7 - 10 \\ A &= (-7 - 6)x - 3 \\ A &= -13x - 3 \end{aligned}$$

$$\begin{aligned} B &= -8x + 2 - x - 7 \\ B &= -8x - x + 2 - 7 \\ B &= (-8 - 1)x - 5 \\ B &= -9x - 5 \end{aligned}$$

$$\begin{aligned} C &= 9x + 1 - 6x - 1 \\ C &= 9x - 6x + 1 - 1 \\ C &= (9 - 6)x \\ C &= 3x \end{aligned}$$

$$\begin{aligned} D &= -8x - 5 + 3x + 10 \\ D &= -8x + 3x - 5 + 10 \\ D &= (-8 + 3)x + 5 \\ D &= -5x + 5 \end{aligned}$$

الخطوة الثانية :

$$\begin{aligned} E &= -6x - 10 - x - 7 - 6x - 1 + 3x + 10 \\ E &= -6x - x - 6x + 3x - 10 - 7 - 1 + 10 \\ E &= (-6 - 1 - 6 + 3)x - 8 \\ E &= -10x - 8 \end{aligned}$$

$$\begin{aligned} F &= -7x + 7 - 8x + 2 + 9x + 1 - 8x - 5 \\ F &= -7x - 8x + 9x - 8x + 7 + 2 + 1 - 5 \\ F &= (-7 - 8 + 9 - 8)x + 5 \\ F &= -14x + 5 \end{aligned}$$

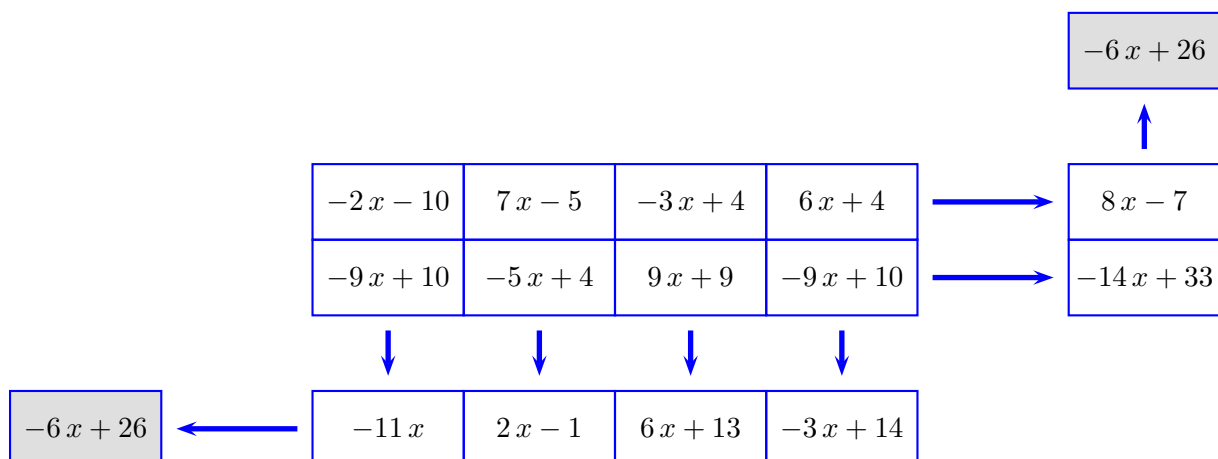
الخطوة الثالثة :

$$\begin{aligned} G &= -13x - 3 - 9x - 5 + 3x - 5x + 5 \\ G &= -13x - 9x + 3x - 5x - 3 - 5 + 5 \\ G &= (-13 - 9 + 3 - 5)x - 3 \\ G &= -24x - 3 \end{aligned}$$

$$\begin{aligned} H &= -10x - 8 - 14x + 5 \\ H &= -10x - 14x - 8 + 5 \\ H &= (-10 - 14)x - 3 \\ H &= -24x - 3 \end{aligned}$$

الخطوة الرابعة :

القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود. أتمم إذا علمت أن x عدد كافي وأن محتوى الخانتين الرماديتين هو نفسه.



: 11 1 1

$$A = -2x - 10 - 9x + 10$$

$$A = -2x - 9x + 10 + 10$$

$$A = (-2 - 9)x$$

$$A = -11x$$

$$B = 7x - 5 - 5x + 4$$

$$B = 7x - 5x - 5 + 4$$

$$B = (7 - 5)x - 1$$

$$B = 2x - 1$$

$$C = -3x + 4 + 9x + 9$$

$$C = -3x + 9x + 4 + 9$$

$$C = (-3 + 9)x + 13$$

$$C = 6x + 13$$

$$D = 6x + 4 - 9x + 10$$

$$D = 6x - 9x + 4 + 10$$

$$D = (6 - 9)x + 14$$

$$D = -3x + 14$$

: 11 1 1

$$E = -9x + 10 - 5x + 4 + 9x + 9 - 9x + 10$$

$$E = -9x - 5x + 9x - 9x + 10 + 4 + 9 + 10$$

$$E = (-9 - 5 + 9 - 9)x + 33$$

$$E = -14x + 33$$

$$F = -2x - 10 + 7x - 5 - 3x + 4 + 6x + 4$$

$$F = -2x + 7x - 3x + 6x - 10 - 5 + 4 + 4$$

$$F = (-2 + 7 - 3 + 6)x - 7$$

$$F = 8x - 7$$

: 11 1 1

$$G = -11x + 2x - 1 + 6x + 13 - 3x + 14$$

$$G = -11x + 2x + 6x - 3x - 1 + 13 + 14$$

$$G = (-11 + 2 + 6 - 3)x + 26$$

$$G = -6x + 26$$

$$H = -14x + 33 + 8x - 7$$

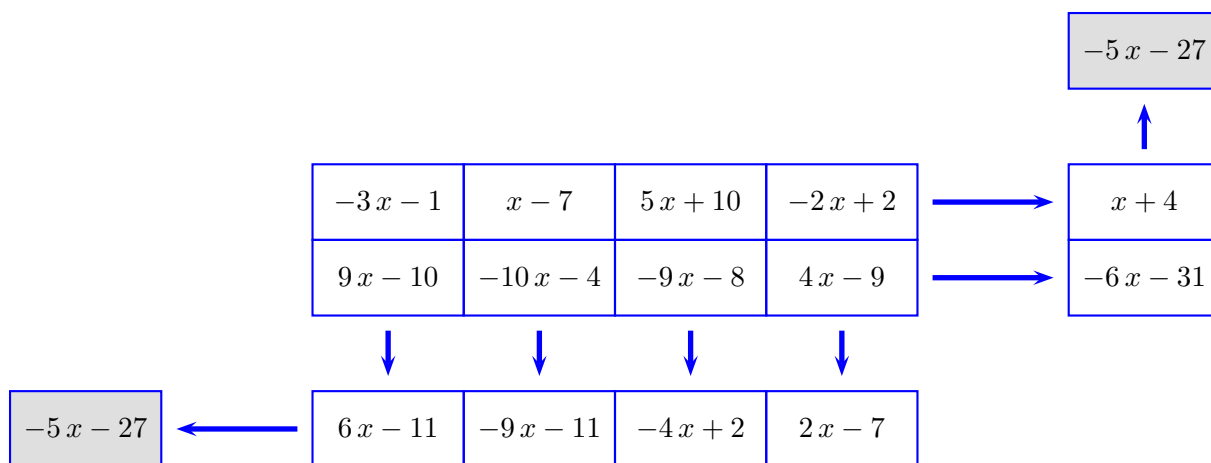
$$H = -14x + 8x + 33 - 7$$

$$H = (-14 + 8)x + 26$$

$$H = -6x + 26$$

10 1 1 1

القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كفي و أن محتوى الخانتين الرماديتين هو نفسه.



: 11 1 1

$$A = -3x - 1 + 9x - 10$$

$$A = -3x + 9x - 1 - 10$$

$$A = (-3 + 9)x - 11$$

$$A = 6x - 11$$

$$B = x - 7 - 10x - 4$$

$$B = x - 10x - 7 - 4$$

$$B = (1 - 10)x - 11$$

$$B = -9x - 11$$

$$C = 5x + 10 - 9x - 8$$

$$C = 5x - 9x + 10 - 8$$

$$C = (5 - 9)x + 2$$

$$C = -4x + 2$$

$$D = -2x + 2 + 4x - 9$$

$$D = -2x + 4x + 2 - 9$$

$$D = (-2 + 4)x - 7$$

$$D = 2x - 7$$

: 11 1 1

$$E = 9x - 10 - 10x - 4 - 9x - 8 + 4x - 9$$

$$E = 9x - 10x - 9x + 4x - 10 - 4 - 8 - 9$$

$$E = (9 - 10 - 9 + 4)x - 31$$

$$E = -6x - 31$$

$$F = -3x - 1 + x - 7 + 5x + 10 - 2x + 2$$

$$F = -3x + x + 5x - 2x - 1 - 7 + 10 + 2$$

$$F = (-3 + 1 + 5 - 2)x + 4$$

$$F = x + 4$$

التمرين 11 :

$$G = 6x - 11 - 9x - 11 - 4x + 2 + 2x - 7$$

$$G = 6x - 9x - 4x + 2x - 11 - 11 + 2 - 7$$

$$G = (6 - 9 - 4 + 2)x - 27$$

$$G = -5x - 27$$

$$H = -6x - 31 + x + 4$$

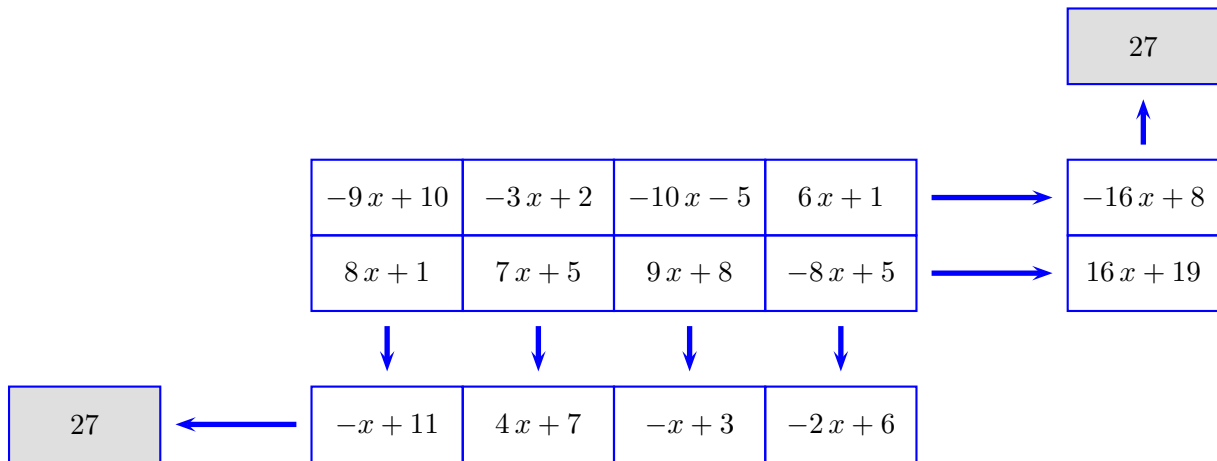
$$H = -6x + x - 31 + 4$$

$$H = (-6 + 1)x - 27$$

$$H = -5x - 27$$

التمرين 11

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي وأن محتوي الخانتين الرماديتين هو نفسه.



التمرين 12 :

$$A = -9x + 10 + 8x + 1$$

$$A = -9x + 8x + 10 + 1$$

$$A = (-9 + 8)x + 11$$

$$A = -x + 11$$

$$B = -3x + 2 + 7x + 5$$

$$B = -3x + 7x + 2 + 5$$

$$B = (-3 + 7)x + 7$$

$$B = 4x + 7$$

$$C = -10x - 5 + 9x + 8$$

$$C = -10x + 9x - 5 + 8$$

$$C = (-10 + 9)x + 3$$

$$C = -x + 3$$

$$D = 6x + 1 - 8x + 5$$

$$D = 6x - 8x + 1 + 5$$

$$D = (6 - 8)x + 6$$

$$D = -2x + 6$$

التمرين 13 :

$$E = 8x + 1 + 7x + 5 + 9x + 8 - 8x + 5$$

$$E = 8x + 7x + 9x - 8x + 1 + 5 + 8 + 5$$

$$E = (8 + 7 + 9 - 8)x + 19$$

$$E = 16x + 19$$

$$F = -9x + 10 - 3x + 2 - 10x - 5 + 6x + 1$$

$$F = -9x - 3x - 10x + 6x + 10 + 2 - 5 + 1$$

$$F = (-9 - 3 - 10 + 6)x + 8$$

$$F = -16x + 8$$

التمرين 14 :

$$G = -x + 11 + 4x + 7 - x + 3 - 2x + 6$$

$$G = -x + 4x - x - 2x + 11 + 7 + 3 + 6$$

$$G = (-1 + 4 - 1 - 2) x + 27$$

$$G = 27$$

$$H = 16x + 19 - 16x + 8$$

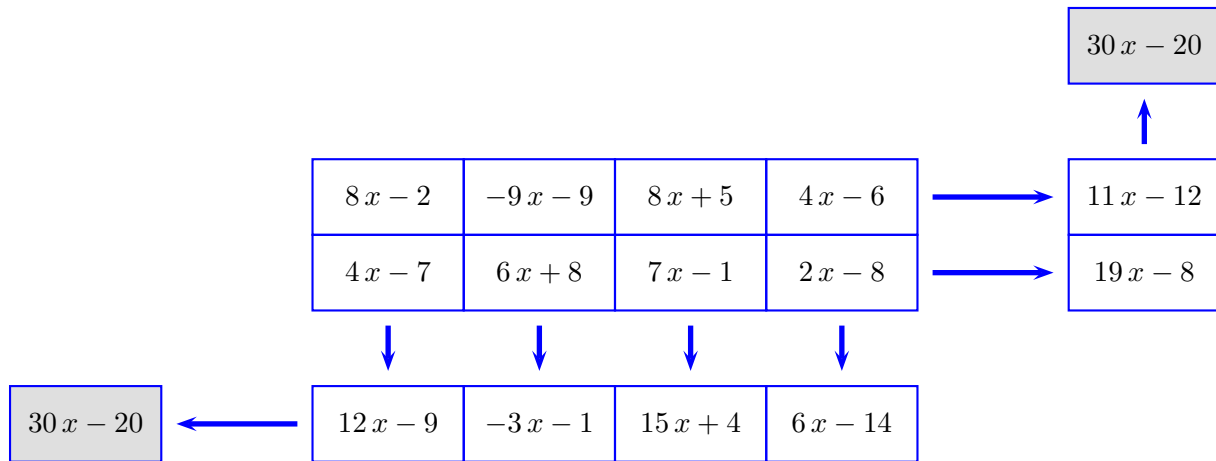
$$H = 16x - 16x + 19 + 8$$

$$H = (16 - 16) x + 27$$

$$H = 27$$

12 /

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



11 /

$$A = 8x - 2 + 4x - 7$$

$$A = 8x + 4x - 2 - 7$$

$$A = (8 + 4) x - 9$$

$$A = 12x - 9$$

$$B = -9x - 9 + 6x + 8$$

$$B = -9x + 6x - 9 + 8$$

$$B = (-9 + 6) x - 1$$

$$B = -3x - 1$$

$$C = 8x + 5 + 7x - 1$$

$$C = 8x + 7x + 5 - 1$$

$$C = (8 + 7) x + 4$$

$$C = 15x + 4$$

$$D = 4x - 6 + 2x - 8$$

$$D = 4x + 2x - 6 - 8$$

$$D = (4 + 2) x - 14$$

$$D = 6x - 14$$

10 /

$$E = 4x - 7 + 6x + 8 + 7x - 1 + 2x - 8$$

$$E = 4x + 6x + 7x + 2x - 7 + 8 - 1 - 8$$

$$E = (4 + 6 + 7 + 2) x - 8$$

$$E = 19x - 8$$

$$F = 8x - 2 - 9x - 9 + 8x + 5 + 4x - 6$$

$$F = 8x - 9x + 8x + 4x - 2 - 9 + 5 - 6$$

$$F = (8 - 9 + 8 + 4) x - 12$$

$$F = 11x - 12$$

9 /

$$G = 12x - 9 - 3x - 1 + 15x + 4 + 6x - 14$$

$$G = 12x - 3x + 15x + 6x - 9 - 1 + 4 - 14$$

$$G = (12 - 3 + 15 + 6) x - 20$$

$$G = 30x - 20$$

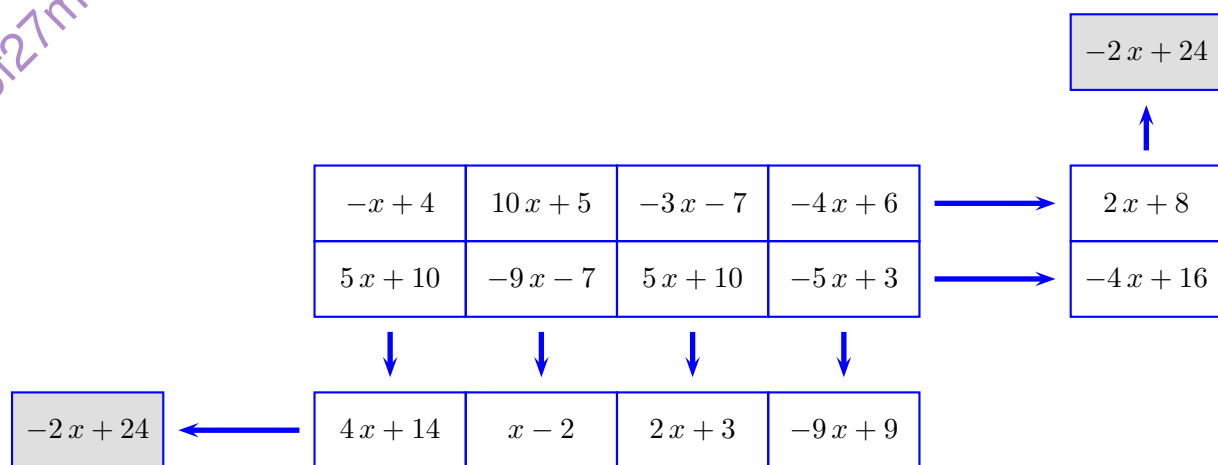
$$H = 19x - 8 + 11x - 12$$

$$H = 19x + 11x - 8 - 12$$

$$H = (19 + 11) x - 20$$

$$H = 30x - 20$$

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



: 11

$$A = -x + 4 + 5x + 10$$

$$A = -x + 5x + 4 + 10$$

$$A = (-1 + 5)x + 14$$

$$A = 4x + 14$$

$$B = 10x + 5 - 9x - 7$$

$$B = 10x - 9x + 5 - 7$$

$$B = (10 - 9)x - 2$$

$$B = x - 2$$

$$C = -3x - 7 + 5x + 10$$

$$C = -3x + 5x - 7 + 10$$

$$C = (-3 + 5)x + 3$$

$$C = 2x + 3$$

$$D = -4x + 6 - 5x + 3$$

$$D = -4x - 5x + 6 + 3$$

$$D = (-4 - 5)x + 9$$

$$D = -9x + 9$$

: 12

$$E = 5x + 10 - 9x - 7 + 5x + 10 - 5x + 3$$

$$E = 5x - 9x + 5x - 5x + 10 - 7 + 10 + 3$$

$$E = (5 - 9 + 5 - 5)x + 16$$

$$E = -4x + 16$$

$$F = -x + 4 + 10x + 5 - 3x - 7 - 4x + 6$$

$$F = -x + 10x - 3x - 4x + 4 + 5 - 7 + 6$$

$$F = (-1 + 10 - 3 - 4)x + 8$$

$$F = 2x + 8$$

: 13

$$G = 4x + 14 + x - 2 + 2x + 3 - 9x + 9$$

$$G = 4x + x + 2x - 9x + 14 - 2 + 3 + 9$$

$$G = (4 + 1 + 2 - 9)x + 24$$

$$G = -2x + 24$$

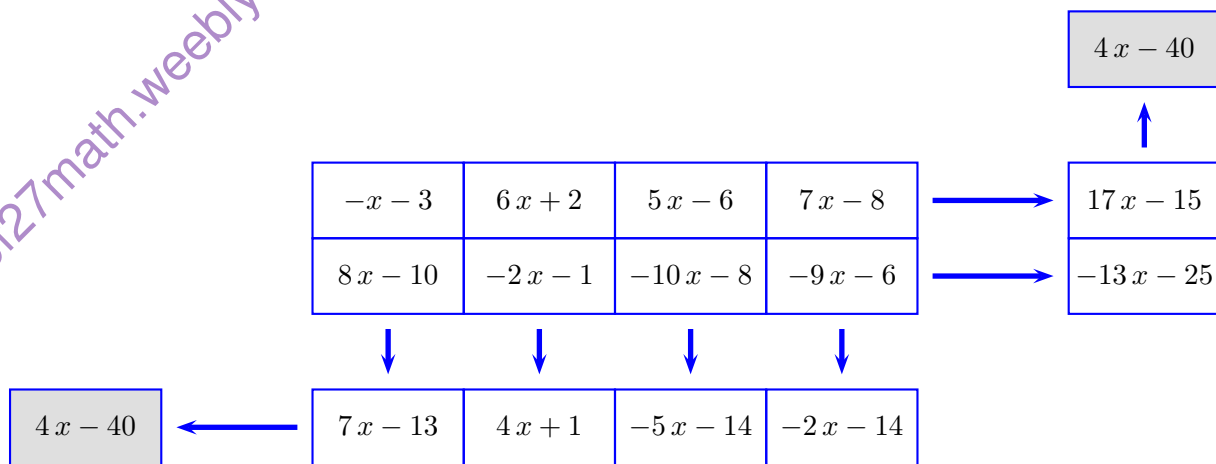
$$H = -4x + 16 + 2x + 8$$

$$H = -4x + 2x + 16 + 8$$

$$H = (-4 + 2)x + 24$$

$$H = -2x + 24$$

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



: 11

$$\begin{aligned} A &= -x - 3 + 8x - 10 \\ A &= -x + 8x - 3 - 10 \\ A &= (-1 + 8)x - 13 \end{aligned}$$

$$A = 7x - 13$$

$$\begin{aligned} B &= 6x + 2 - 2x - 1 \\ B &= 6x - 2x + 2 - 1 \\ B &= (6 - 2)x + 1 \end{aligned}$$

$$B = 4x + 1$$

$$\begin{aligned} C &= 5x - 6 - 10x - 8 \\ C &= 5x - 10x - 6 - 8 \\ C &= (5 - 10)x - 14 \end{aligned}$$

$$C = -5x - 14$$

$$\begin{aligned} D &= 7x - 8 - 9x - 6 \\ D &= 7x - 9x - 8 - 6 \\ D &= (7 - 9)x - 14 \end{aligned}$$

$$D = -2x - 14$$

: 12

$$\begin{aligned} E &= 8x - 10 - 2x - 1 - 10x - 8 - 9x - 6 \\ E &= 8x - 2x - 10x - 9x - 10 - 1 - 8 - 6 \\ E &= (8 - 2 - 10 - 9)x - 25 \end{aligned}$$

$$E = -13x - 25$$

$$\begin{aligned} F &= -x - 3 + 6x + 2 + 5x - 6 + 7x - 8 \\ F &= -x + 6x + 5x + 7x - 3 + 2 - 6 - 8 \\ F &= (-1 + 6 + 5 + 7)x - 15 \end{aligned}$$

$$F = 17x - 15$$

: 13

$$\begin{aligned} G &= 7x - 13 + 4x + 1 - 5x - 14 - 2x - 14 \\ G &= 7x + 4x - 5x - 2x - 13 + 1 - 14 - 14 \\ G &= (7 + 4 - 5 - 2)x - 40 \end{aligned}$$

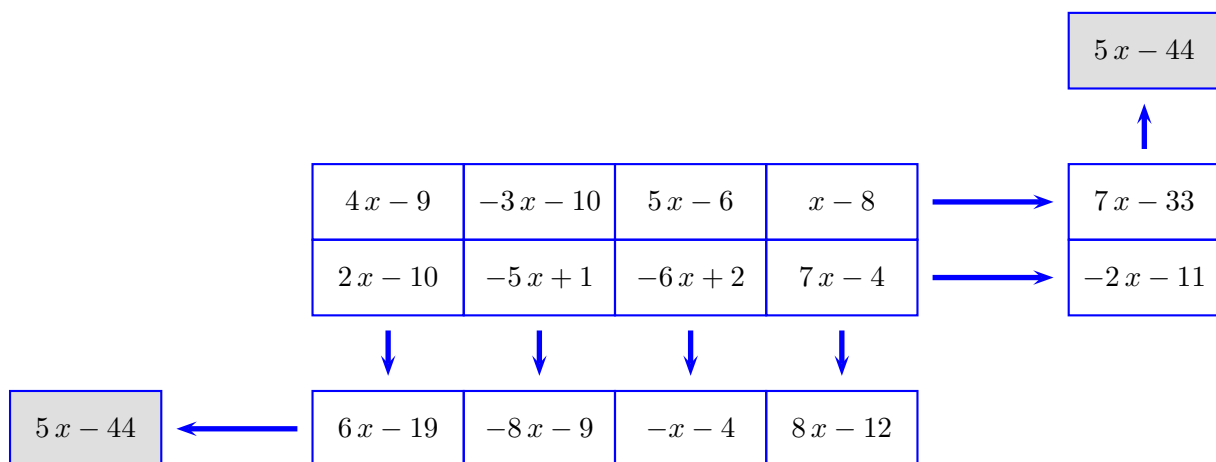
$$G = 4x - 40$$

$$\begin{aligned} H &= -13x - 25 + 17x - 15 \\ H &= -13x + 17x - 25 - 15 \\ H &= (-13 + 17)x - 40 \end{aligned}$$

$$H = 4x - 40$$

: 15

القاعدة : طرف السهم يمثّل مجموع العبارات الحرفية الموجودة في السطر أو العمود. أتمم إذا علمت أن x عدد كافي وأن محتوى الخانتين الرماديتين هو نفسه.



: 11 1 1

$$A = 4x - 9 + 2x - 10$$

$$A = 4x + 2x - 9 - 10$$

$$A = (4 + 2)x - 19$$

$$A = 6x - 19$$

$$B = -3x - 10 - 5x + 1$$

$$B = -3x - 5x - 10 + 1$$

$$B = (-3 - 5)x - 9$$

$$B = -8x - 9$$

$$C = 5x - 6 - 6x + 2$$

$$C = 5x - 6x - 6 + 2$$

$$C = (5 - 6)x - 4$$

$$C = -x - 4$$

$$D = x - 8 + 7x - 4$$

$$D = x + 7x - 8 - 4$$

$$D = (1 + 7)x - 12$$

$$D = 8x - 12$$

: 10 1 1

$$E = 2x - 10 - 5x + 1 - 6x + 2 + 7x - 4$$

$$E = 2x - 5x - 6x + 7x - 10 + 1 + 2 - 4$$

$$E = (2 - 5 - 6 + 7)x - 11$$

$$E = -2x - 11$$

$$F = 4x - 9 - 3x - 10 + 5x - 6 + x - 8$$

$$F = 4x - 3x + 5x + x - 9 - 10 - 6 - 8$$

$$F = (4 - 3 + 5 + 1)x - 33$$

$$F = 7x - 33$$

: 11 1 1

$$G = 6x - 19 - 8x - 9 - x - 4 + 8x - 12$$

$$G = 6x - 8x - x + 8x - 19 - 9 - 4 - 12$$

$$G = (6 - 8 - 1 + 8)x - 44$$

$$G = 5x - 44$$

$$H = -2x - 11 + 7x - 33$$

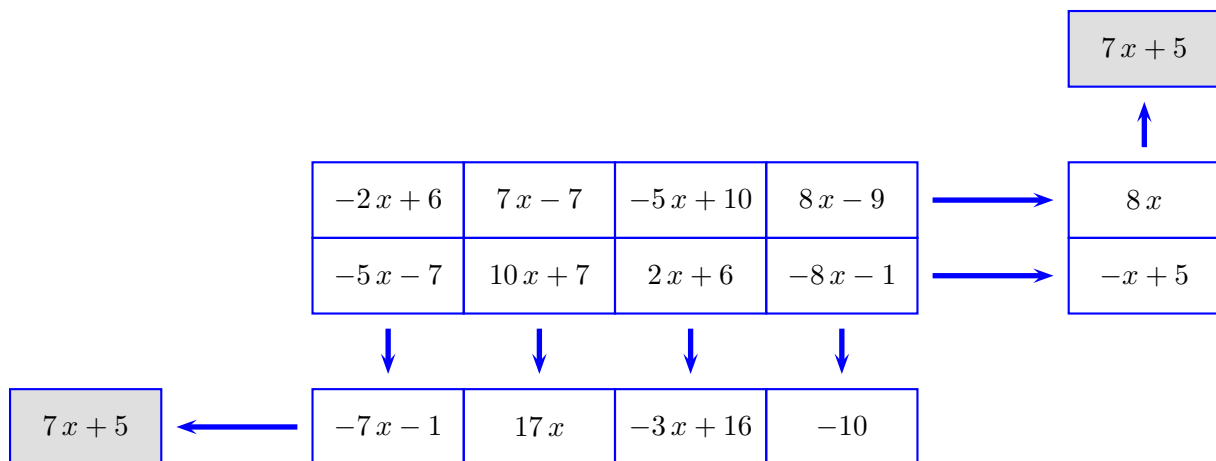
$$H = -2x + 7x - 11 - 33$$

$$H = (-2 + 7)x - 44$$

$$H = 5x - 44$$

16 1 1

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي وأن محتوى الخانتين الرماديتين هو نفسه.



: 11 1 1

$$A = -2x + 6 - 5x - 7$$

$$A = -2x - 5x + 6 - 7$$

$$A = (-2 - 5)x - 1$$

$$A = -7x - 1$$

$$B = 7x - 7 + 10x + 7$$

$$B = 7x + 10x - 7 + 7$$

$$B = (7 + 10)x$$

$$B = 17x$$

$$C = -5x + 10 + 2x + 6$$

$$C = -5x + 2x + 10 + 6$$

$$C = (-5 + 2)x + 16$$

$$C = -3x + 16$$

$$D = 8x - 9 - 8x - 1$$

$$D = 8x - 8x - 9 - 1$$

$$D = (8 - 8)x - 10$$

$$D = -10$$

: 10 1 1

$$E = -5x - 7 + 10x + 7 + 2x + 6 - 8x - 1$$

$$E = -5x + 10x + 2x - 8x - 7 + 7 + 6 - 1$$

$$E = (-5 + 10 + 2 - 8)x + 5$$

$$E = -x + 5$$

$$F = -2x + 6 + 7x - 7 - 5x + 10 + 8x - 9$$

$$F = -2x + 7x - 5x + 8x + 6 - 7 + 10 - 9$$

$$F = (-2 + 7 - 5 + 8)x$$

$$F = 8x$$

النتيجة :

$$G = -7x - 1 + 17x - 3x + 16 - 10$$

$$G = -7x + 17x - 3x - 1 + 16 - 10$$

$$G = (-7 + 17 - 3)x + 5$$

$$G = 7x + 5$$

$$H = -x + 5 + 8x$$

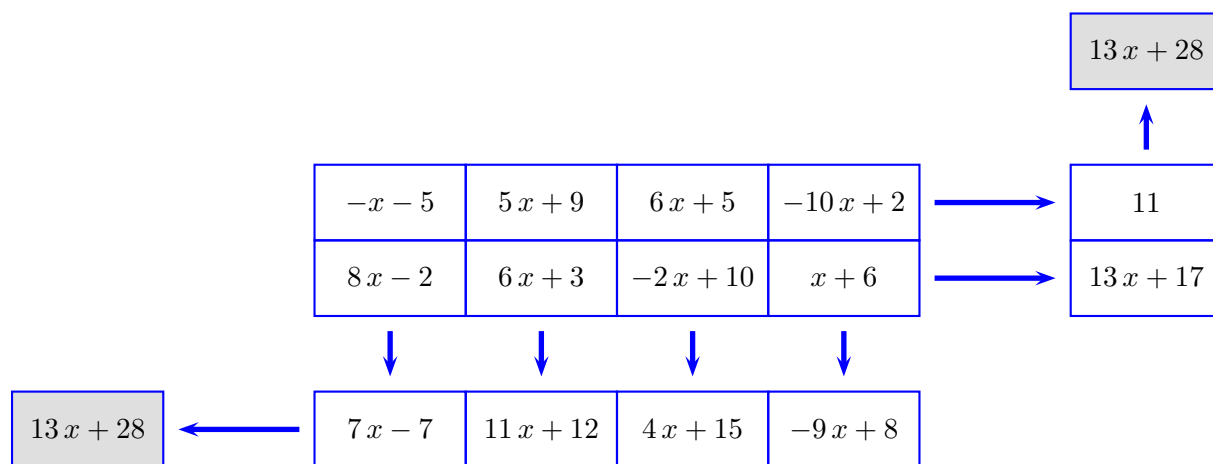
$$H = -x + 8x + 5$$

$$H = (-1 + 8)x + 5$$

$$H = 7x + 5$$

النتيجة : 17

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



النتيجة :

$$A = -x - 5 + 8x - 2$$

$$A = -x + 8x - 5 - 2$$

$$A = (-1 + 8)x - 7$$

$$A = 7x - 7$$

$$B = 5x + 9 + 6x + 3$$

$$B = 5x + 6x + 9 + 3$$

$$B = (5 + 6)x + 12$$

$$B = 11x + 12$$

$$C = 6x + 5 - 2x + 10$$

$$C = 6x - 2x + 5 + 10$$

$$C = (6 - 2)x + 15$$

$$C = 4x + 15$$

$$D = -10x + 2 + x + 6$$

$$D = -10x + x + 2 + 6$$

$$D = (-10 + 1)x + 8$$

$$D = -9x + 8$$

النتيجة : 18

$$E = 8x - 2 + 6x + 3 - 2x + 10 + x + 6$$

$$E = 8x + 6x - 2x + x - 2 + 3 + 10 + 6$$

$$E = (8 + 6 - 2 + 1)x + 17$$

$$E = 13x + 17$$

$$F = -x - 5 + 5x + 9 + 6x + 5 - 10x + 2$$

$$F = -x + 5x + 6x - 10x - 5 + 9 + 5 + 2$$

$$F = (-1 + 5 + 6 - 10)x + 11$$

$$F = 11$$

النتيجة :

$$G = 7x - 7 + 11x + 12 + 4x + 15 - 9x + 8$$

$$G = 7x + 11x + 4x - 9x - 7 + 12 + 15 + 8$$

$$G = (7 + 11 + 4 - 9)x + 28$$

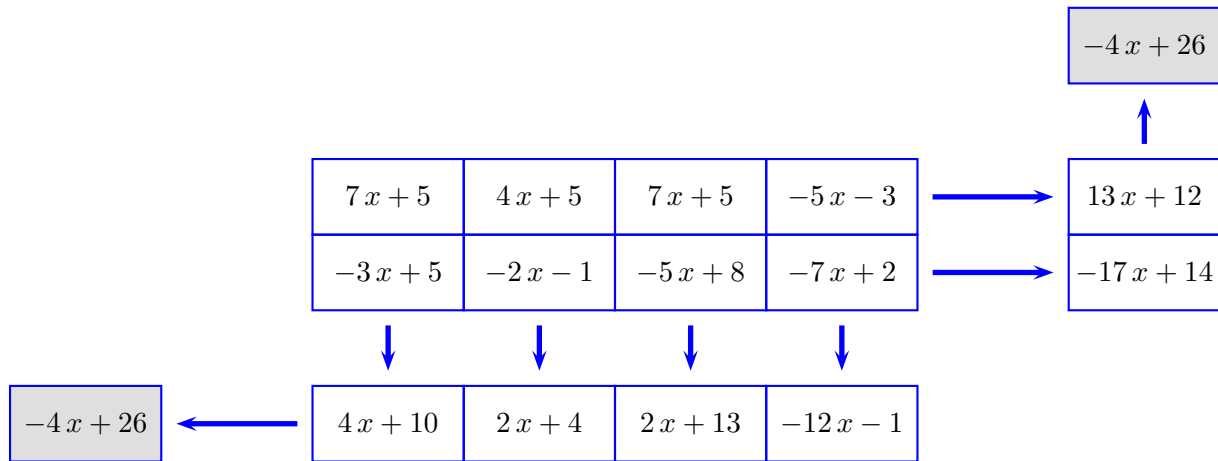
$$G = 13x + 28$$

$$H = 13x + 17 + 11$$

$$H = 13x + 28$$

18 /

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



: 11 /

$$A = 7x + 5 - 3x + 5$$

$$A = 7x - 3x + 5 + 5$$

$$A = (7 - 3)x + 10$$

$$A = 4x + 10$$

$$B = 4x + 5 - 2x - 1$$

$$B = 4x - 2x + 5 - 1$$

$$B = (4 - 2)x + 4$$

$$B = 2x + 4$$

$$C = 7x + 5 - 5x + 8$$

$$C = 7x - 5x + 5 + 8$$

$$C = (7 - 5)x + 13$$

$$C = 2x + 13$$

$$D = -5x - 3 - 7x + 2$$

$$D = -5x - 7x - 3 + 2$$

$$D = (-5 - 7)x - 1$$

$$D = -12x - 1$$

: 10 /

$$E = -3x + 5 - 2x - 1 - 5x + 8 - 7x + 2$$

$$E = -3x - 2x - 5x - 7x + 5 - 1 + 8 + 2$$

$$E = (-3 - 2 - 5 - 7)x + 14$$

$$E = -17x + 14$$

$$F = 7x + 5 + 4x + 5 + 7x + 5 - 5x - 3$$

$$F = 7x + 4x + 7x - 5x + 5 + 5 + 5 - 3$$

$$F = (7 + 4 + 7 - 5)x + 12$$

$$F = 13x + 12$$

: 9 /

$$G = 4x + 10 + 2x + 4 + 2x + 13 - 12x - 1$$

$$G = 4x + 2x + 2x - 12x + 10 + 4 + 13 - 1$$

$$G = (4 + 2 + 2 - 12)x + 26$$

$$G = -4x + 26$$

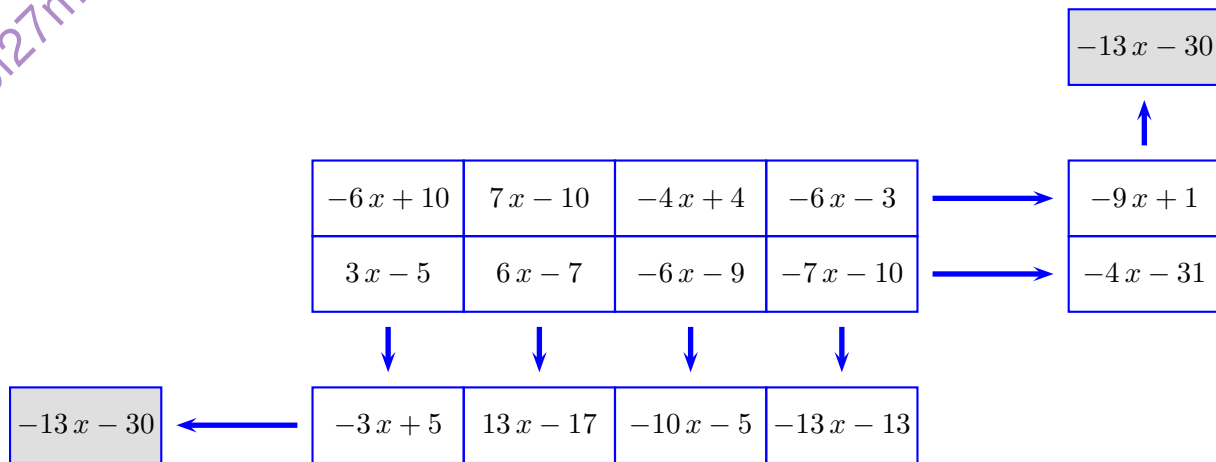
$$H = -17x + 14 + 13x + 12$$

$$H = -17x + 13x + 14 + 12$$

$$H = (-17 + 13)x + 26$$

$$H = -4x + 26$$

القاعدة : طرف السهم يمثل مجموع العبارات الحرفية الموجودة في السطر أو العمود.
أتمم إذا علمت أن x عدد كافي و أن محتوى الخانتين الرماديتين هو نفسه.



: ١١ /

$$A = -6x + 10 + 3x - 5$$

$$A = -6x + 3x + 10 - 5$$

$$A = (-6 + 3)x + 5$$

$$A = -3x + 5$$

$$B = 7x - 10 + 6x - 7$$

$$B = 7x + 6x - 10 - 7$$

$$B = (7 + 6)x - 17$$

$$B = 13x - 17$$

$$C = -4x + 4 - 6x - 9$$

$$C = -4x - 6x + 4 - 9$$

$$C = (-4 - 6)x - 5$$

$$C = -10x - 5$$

$$D = -6x - 3 - 7x - 10$$

$$D = -6x - 7x - 3 - 10$$

$$D = (-6 - 7)x - 13$$

$$D = -13x - 13$$

: 12 /

$$E = 3x - 5 + 6x - 7 - 6x - 9 - 7x - 10$$

$$E = 3x + 6x - 6x - 7x - 5 - 7 - 9 - 10$$

$$E = (3 + 6 - 6 - 7)x - 31$$

$$E = -4x - 31$$

$$F = -6x + 10 + 7x - 10 - 4x + 4 - 6x - 3$$

$$F = -6x + 7x - 4x - 6x + 10 - 10 + 4 - 3$$

$$F = (-6 + 7 - 4 - 6)x + 1$$

$$F = -9x + 1$$

: 13 /

$$G = -3x + 5 + 13x - 17 - 10x - 5 - 13x - 13$$

$$G = -3x + 13x - 10x - 13x + 5 - 17 - 5 - 13$$

$$G = (-3 + 13 - 10 - 13)x - 30$$

$$G = -13x - 30$$

$$H = -4x - 31 - 9x + 1$$

$$H = -4x - 9x - 31 + 1$$

$$H = (-4 - 9)x - 30$$

$$H = -13x - 30$$

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 7 \times 3x$$

$$A = 7 \times 3 \times x$$

$$A = 21x$$

$$B = 6x \times 6$$

$$B = 6 \times x \times 6$$

$$B = 6 \times 6 \times x$$

$$B = 36x$$

$$C = (x - 9) \times 9 + 5x + 5$$

$$C = x \times 9 - 9 \times 9 + 5x + 5$$

$$C = 9 \times x - 81 + 5x + 5$$

$$C = 9x + 5x - 81 + 5$$

$$C = (9 + 5)x - 76$$

$$C = 14x - 76$$

$$D = (3x + 4) \times 6 - 8x$$

$$D = 3x \times 6 + 4 \times 6 - 8x$$

$$D = 3 \times x \times 6 + 24 - 8x$$

$$D = 3 \times 6 \times x - 8x + 24$$

$$D = 18x - 8x + 24$$

$$D = (18 - 8)x + 24$$

$$D = 10x + 24$$

$$E = 5 \times (4x + 10) + 9$$

$$E = 5 \times 4x + 5 \times 10 + 9$$

$$E = 5 \times 4 \times x + 50 + 9$$

$$E = 20x + 59$$

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times 3$$

$$A = 5 \times x \times 3$$

$$A = 5 \times 3 \times x$$

$$A = 15x$$

$$B = 3 \times 6x$$

$$B = 3 \times 6 \times x$$

$$B = 18x$$

$$C = (-9x - 5) \times 4 + 10$$

$$C = -9x \times 4 - 5 \times 4 + 10$$

$$C = -9 \times x \times 4 - 20 + 10$$

$$C = -9 \times 4 \times x - 10$$

$$C = -36x - 10$$

$$D = 8 \times (10x - 8) - 2x - 4$$

$$D = 8 \times 10x + 8 \times (-8) - 2x - 4$$

$$D = 8 \times 10 \times x - 64 - 2x - 4$$

$$D = 80x - 2x - 64 - 4$$

$$D = (80 - 2)x - 68$$

$$D = 78x - 68$$

$$E = 2 \times (10x + 1) + 8x$$

$$E = 2 \times 10x + 2 \times 1 + 8x$$

$$E = 2 \times 10 \times x + 2 + 8x$$

$$E = 20x + 8x + 2$$

$$E = (20 + 8)x + 2$$

$$E = 28x + 2$$

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3x \times 5$$

$$A = 3 \times x \times 5$$

$$A = 3 \times 5 \times x$$

$$A = 15x$$

$$B = 9 \times 7x$$

$$B = 9 \times 7 \times x$$

$$B = 63x$$

$$C = 10 \times (-8x - 8) + 9x - 4$$

$$C = 10 \times (-8x) + 10 \times (-8) + 9x - 4$$

$$C = 10 \times (-8) \times x - 80 + 9x - 4$$

$$C = -80x + 9x - 80 - 4$$

$$C = (-80 + 9)x - 84$$

$$C = -71x - 84$$

$$D = 2x + 6 \times (-2x + 8)$$

$$D = 2x + 6 \times (-2x) + 6 \times 8$$

$$D = 2x + 6 \times (-2) \times x + 48$$

$$D = 2x - 12x + 48$$

$$D = (2 - 12)x + 48$$

$$D = -10x + 48$$

$$E = 7 + (-8x - 2) \times 7$$

$$E = 7 - 8x \times 7 - 2 \times 7$$

$$E = 7 - 8 \times x \times 7 - 14$$

$$E = 7 - 8 \times 7 \times x - 14$$

$$E = 7 - 56x - 14$$

$$E = -56x + 7 - 14$$

$$E = -56x - 7$$

4 / ٧ ٤ ٩ /

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 8x \times 3$$

$$A = 8 \times x \times 3$$

$$A = 8 \times 3 \times x$$

$$A = 24x$$

$$B = 8 \times 2x$$

$$B = 8 \times 2 \times x$$

$$B = 16x$$

$$C = (8x - 7) \times 6 - 6x$$

$$C = 8x \times 6 - 7 \times 6 - 6x$$

$$C = 8 \times x \times 6 - 42 - 6x$$

$$C = 8 \times 6 \times x - 6x - 42$$

$$C = 48x - 6x - 42$$

$$C = (48 - 6)x - 42$$

$$C = 42x - 42$$

$$D = (-2x - 6) \times 5 - 9x + 6$$

$$D = -2x \times 5 - 6 \times 5 - 9x + 6$$

$$D = -2 \times x \times 5 - 30 - 9x + 6$$

$$D = -2 \times 5 \times x - 9x - 30 + 6$$

$$D = -10x - 9x - 30 + 6$$

$$D = (-10 - 9)x - 24$$

$$D = -19x - 24$$

$$E = 8 + (-2x - 3) \times 4$$

$$E = 8 - 2x \times 4 - 3 \times 4$$

$$E = 8 - 2 \times x \times 4 - 12$$

$$E = 8 - 2 \times 4 \times x - 12$$

$$E = 8 - 8x - 12$$

$$E = -8x + 8 - 12$$

$$E = -8x - 4$$

5 / ٧ ٤ ٩ /

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 4x \times 9$$

$$A = 4 \times x \times 9$$

$$A = 4 \times 9 \times x$$

$$A = 36x$$

$$B = 4 \times 7x$$

$$B = 4 \times 7 \times x$$

$$B = 28x$$

$$C = (-x + 4) \times 10 + 6x$$

$$C = -x \times 10 + 4 \times 10 + 6x$$

$$C = -1 \times x \times 10 + 40 + 6x$$

$$C = -1 \times 10 \times x + 6x + 40$$

$$C = -10x + 6x + 40$$

$$C = (-10 + 6)x + 40$$

$$C = -4x + 40$$

$$D = 5 + (7x - 5) \times 3$$

$$D = 5 + 7x \times 3 - 5 \times 3$$

$$D = 5 + 7 \times x \times 3 - 15$$

$$D = 5 + 7 \times 3 \times x - 15$$

$$D = 5 + 21x - 15$$

$$D = 21x + 5 - 15$$

$$D = 21x - 10$$

$$E = -7x + 10 + (8x + 2) \times 7$$

$$E = -7x + 10 + 8x \times 7 + 2 \times 7$$

$$E = -7x + 10 + 8 \times x \times 7 + 14$$

$$E = -7x + 10 + 8 \times 7 \times x + 14$$

$$E = -7x + 10 + 56x + 14$$

$$E = -7x + 56x + 10 + 14$$

$$E = (-7 + 56)x + 24$$

$$E = 49x + 24$$

6 / ٦ / ٦

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 5x \times 9$$

$$A = 5 \times x \times 9$$

$$A = 5 \times 9 \times x$$

$$A = 45x$$

$$B = 9 \times 8x$$

$$B = 9 \times 8 \times x$$

$$B = 72x$$

$$C = 2 \times (-2x + 8) + x$$

$$C = 2 \times (-2x) + 2 \times 8 + x$$

$$C = 2 \times (-2) \times x + 16 + x$$

$$C = -4x + x + 16$$

$$C = (-4 + 1)x + 16$$

$$C = -3x + 16$$

$$D = 7x - 5 + 8 \times (-8x + 4)$$

$$D = 7x - 5 + 8 \times (-8x) + 8 \times 4$$

$$D = 7x - 5 + 8 \times (-8) \times x + 32$$

$$D = 7x - 5 - 64x + 32$$

$$D = 7x - 64x - 5 + 32$$

$$D = (7 - 64)x + 27$$

$$D = -57x + 27$$

$$E = 10 + (9x + 3) \times 6$$

$$E = 10 + 9x \times 6 + 3 \times 6$$

$$E = 10 + 9 \times x \times 6 + 18$$

$$E = 10 + 9 \times 6 \times x + 18$$

$$E = 10 + 54x + 18$$

$$E = 54x + 10 + 18$$

$$E = 54x + 28$$

7 / ٦ / ٦

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 7x \times 7$$

$$A = 7 \times x \times 7$$

$$A = 7 \times 7 \times x$$

$$A = 49x$$

$$B = 2 \times 4x$$

$$B = 2 \times 4 \times x$$

$$B = 8x$$

$$C = -1 + 6 \times (4x - 3)$$

$$C = -1 + 6 \times 4x + 6 \times (-3)$$

$$C = -1 + 6 \times 4 \times x - 18$$

$$C = -1 + 24x - 18$$

$$C = 24x - 1 - 18$$

$$C = 24x - 19$$

$$D = 7x + (-5x - 7) \times 10$$

$$D = 7x - 5x \times 10 - 7 \times 10$$

$$D = 7x - 5 \times x \times 10 - 70$$

$$D = 7x - 5 \times 10 \times x - 70$$

$$D = 7x - 50x - 70$$

$$D = (7 - 50)x - 70$$

$$D = -43x - 70$$

$$E = 3 \times (-9x - 3) + 10x - 9$$

$$E = 3 \times (-9x) + 3 \times (-3) + 10x - 9$$

$$E = 3 \times (-9) \times x - 9 + 10x - 9$$

$$E = -27x + 10x - 9 - 9$$

$$E = (-27 + 10)x - 18$$

$$E = -17x - 18$$

8 / ٦ / ٦

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 5x \times 5$$

$$A = 5 \times x \times 5$$

$$A = 5 \times 5 \times x$$

$$A = 25x$$

$$B = 3 \times 5x$$

$$B = 3 \times 5 \times x$$

$$B = 15x$$

$$C = 5 \times (-7x - 5) + 7$$

$$C = 5 \times (-7x) + 5 \times (-5) + 7$$

$$C = 5 \times (-7) \times x - 25 + 7$$

$$C = -35x - 18$$

$$D = 8 \times (-x - 1) - x - 5$$

$$D = 8 \times (-x) + 8 \times (-1) - x - 5$$

$$D = 8 \times (-1) \times x - 8 - x - 5$$

$$D = -8x - x - 8 - 5$$

$$D = (-8 - 1)x - 13$$

$$D = -9x - 13$$

$$E = x + 10 \times (-3x - 8)$$

$$E = x + 10 \times (-3x) + 10 \times (-8)$$

$$E = x + 10 \times (-3) \times x - 80$$

$$E = x - 30x - 80$$

$$E = (1 - 30)x - 80$$

$$E = -29x - 80$$

9 / ٩ ٩ ٩

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3x \times 7$$

$$A = 3 \times x \times 7$$

$$A = 3 \times 7 \times x$$

$$A = 21x$$

$$B = 9x \times 6$$

$$B = 9 \times x \times 6$$

$$B = 9 \times 6 \times x$$

$$B = 54x$$

$$C = x + 6 + (10x + 1) \times 8$$

$$C = x + 6 + 10x \times 8 + 1 \times 8$$

$$C = x + 6 + 10 \times x \times 8 + 8$$

$$C = x + 6 + 10 \times 8 \times x + 8$$

$$C = x + 6 + 80x + 8$$

$$C = x + 80x + 6 + 8$$

$$C = (1 + 80)x + 14$$

$$C = 81x + 14$$

$$D = -9 + (-5x - 3) \times 8$$

$$D = -9 - 5x \times 8 - 3 \times 8$$

$$D = -9 - 5 \times x \times 8 - 24$$

$$D = -9 - 5 \times 8 \times x - 24$$

$$D = -9 - 40x - 24$$

$$D = -40x - 9 - 24$$

$$D = -40x - 33$$

$$E = 2 \times (10x - 4) - 6x$$

$$E = 2 \times 10x + 2 \times (-4) - 6x$$

$$E = 2 \times 10 \times x - 8 - 6x$$

$$E = 20x - 6x - 8$$

$$E = (20 - 6)x - 8$$

$$E = 14x - 8$$

10 / ١٠ ١٠ ١٠

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3 \times 3x$$

$$A = 3 \times 3 \times x$$

$$A = 9x$$

$$B = 5x \times 7$$

$$B = 5 \times x \times 7$$

$$B = 5 \times 7 \times x$$

$$B = 35x$$

$$C = 4x + (-8x - 8) \times 7$$

$$C = 4x - 8x \times 7 - 8 \times 7$$

$$C = 4x - 8 \times x \times 7 - 56$$

$$C = 4x - 8 \times 7 \times x - 56$$

$$C = 4x - 56x - 56$$

$$C = (4 - 56)x - 56$$

$$C = -52x - 56$$

$$D = (x + 8) \times 8 - x - 1$$

$$D = x \times 8 + 8 \times 8 - x - 1$$

$$D = 8 \times x + 64 - x - 1$$

$$D = 8x - x + 64 - 1$$

$$D = (8 - 1) x + 63$$

$$D = 7x + 63$$

$$E = 8 \times (2x - 8) + 7$$

$$E = 8 \times 2x + 8 \times (-8) + 7$$

$$E = 8 \times 2 \times x - 64 + 7$$

$$E = 16x - 57$$

11 / تمرين

انشر ثم بسط العبارات الحرفية التالية :

$$A = 5x \times 6$$

$$A = 5 \times x \times 6$$

$$A = 5 \times 6 \times x$$

$$A = 30x$$

$$B = 3x \times 9$$

$$B = 3 \times x \times 9$$

$$B = 3 \times 9 \times x$$

$$B = 27x$$

$$C = (-9x + 5) \times 3 + 9x + 9$$

$$C = -9x \times 3 + 5 \times 3 + 9x + 9$$

$$C = -9 \times x \times 3 + 15 + 9x + 9$$

$$C = -9 \times 3 \times x + 9x + 15 + 9$$

$$C = -27x + 9x + 15 + 9$$

$$C = (-27 + 9) x + 24$$

$$C = -18x + 24$$

$$D = (8x - 3) \times 5 + 2$$

$$D = 8x \times 5 - 3 \times 5 + 2$$

$$D = 8 \times x \times 5 - 15 + 2$$

$$D = 8 \times 5 \times x - 13$$

$$D = 40x - 13$$

$$E = 2x + 7 \times (3x - 6)$$

$$E = 2x + 7 \times 3x + 7 \times (-6)$$

$$E = 2x + 7 \times 3 \times x - 42$$

$$E = 2x + 21x - 42$$

$$E = (2 + 21) x - 42$$

$$E = 23x - 42$$

12 / تمرين

انشر ثم بسط العبارات الحرفية التالية :

$$A = 5 \times 9x$$

$$A = 5 \times 9 \times x$$

$$A = 45x$$

$$B = 9x \times 8$$

$$B = 9 \times x \times 8$$

$$B = 9 \times 8 \times x$$

$$B = 72x$$

$$C = 4 \times (-9x - 8) + 3x$$

$$C = 4 \times (-9x) + 4 \times (-8) + 3x$$

$$C = 4 \times (-9) \times x - 32 + 3x$$

$$C = -36x + 3x - 32$$

$$C = (-36 + 3) x - 32$$

$$C = -33x - 32$$

$$D = 3 \times (-x - 2) - 2x + 10$$

$$D = 3 \times (-x) + 3 \times (-2) - 2x + 10$$

$$D = 3 \times (-1) \times x - 6 - 2x + 10$$

$$D = -3x - 2x - 6 + 10$$

$$D = (-3 - 2) x + 4$$

$$D = -5x + 4$$

$$E = 3 + 5 \times (-9x - 7)$$

$$E = 3 + 5 \times (-9x) + 5 \times (-7)$$

$$E = 3 + 5 \times (-9) \times x - 35$$

$$E = 3 - 45x - 35$$

$$E = -45x + 3 - 35$$

$$E = -45x - 32$$

13 / تمرين

انشر ثم بسط العبارات الحرفية التالية :

$$A = 6x \times 8$$

$$A = 6 \times x \times 8$$

$$A = 6 \times 8 \times x$$

$$A = 48x$$

$$B = 2 \times 4x$$

$$B = 2 \times 4 \times x$$

$$B = 8x$$

$$C = 5 \times (10x - 8) + 6x$$

$$C = 5 \times 10x + 5 \times (-8) + 6x$$

$$C = 5 \times 10 \times x - 40 + 6x$$

$$C = 50x + 6x - 40$$

$$C = (50 + 6)x - 40$$

$$C = 56x - 40$$

$$D = 6 + 5 \times (2x - 1)$$

$$D = 6 + 5 \times 2x + 5 \times (-1)$$

$$D = 6 + 5 \times 2 \times x - 5$$

$$D = 6 + 10x - 5$$

$$D = 10x + 6 - 5$$

$$D = 10x + 1$$

$$E = (-6x - 4) \times 4 + 6x + 4$$

$$E = -6x \times 4 - 4 \times 4 + 6x + 4$$

$$E = -6 \times x \times 4 - 16 + 6x + 4$$

$$E = -6 \times 4 \times x + 6x - 16 + 4$$

$$E = -24x + 6x - 16 + 4$$

$$E = (-24 + 6)x - 12$$

$$E = -18x - 12$$

14 / ١٤ / ٢٠٢١

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 7 \times 2x$$

$$A = 7 \times 2 \times x$$

$$A = 14x$$

$$B = 3x \times 7$$

$$B = 3 \times x \times 7$$

$$B = 3 \times 7 \times x$$

$$B = 21x$$

$$C = 1 + 5 \times (-10x - 4)$$

$$C = 1 + 5 \times (-10x) + 5 \times (-4)$$

$$C = 1 + 5 \times (-10) \times x - 20$$

$$C = 1 - 50x - 20$$

$$C = -50x + 1 - 20$$

$$C = -50x - 19$$

$$D = 9 \times (-x - 6) - 4x + 6$$

$$D = 9 \times (-x) + 9 \times (-6) - 4x + 6$$

$$D = 9 \times (-1) \times x - 54 - 4x + 6$$

$$D = -9x - 4x - 54 + 6$$

$$D = (-9 - 4)x - 48$$

$$D = -13x - 48$$

$$E = 7 \times (4x - 2) + 3x$$

$$E = 7 \times 4x + 7 \times (-2) + 3x$$

$$E = 7 \times 4 \times x - 14 + 3x$$

$$E = 28x + 3x - 14$$

$$E = (28 + 3)x - 14$$

$$E = 31x - 14$$

15 / ١٥ / ٢٠٢١

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 8x \times 2$$

$$A = 8 \times x \times 2$$

$$A = 8 \times 2 \times x$$

$$A = 16x$$

$$B = 2x \times 4$$

$$B = 2 \times x \times 4$$

$$B = 2 \times 4 \times x$$

$$B = 8x$$

$$C = -9 + (-x + 3) \times 10$$

$$C = -9 - x \times 10 + 3 \times 10$$

$$C = -9 - 1 \times x \times 10 + 30$$

$$C = -9 - 1 \times 10 \times x + 30$$

$$C = -9 - 10x + 30$$

$$C = -10x - 9 + 30$$

$$C = -10x + 21$$

$$D = x + 2 \times (5x - 10)$$

$$D = x + 2 \times 5x + 2 \times (-10)$$

$$D = x + 2 \times 5 \times x - 20$$

$$D = x + 10x - 20$$

$$D = (1 + 10)x - 20$$

$$D = 11x - 20$$

$$E = (-4x + 5) \times 6 - 2x + 4$$

$$E = -4x \times 6 + 5 \times 6 - 2x + 4$$

$$E = -4 \times x \times 6 + 30 - 2x + 4$$

$$E = -4 \times 6 \times x - 2x + 30 + 4$$

$$E = -24x - 2x + 30 + 4$$

$$E = (-24 - 2)x + 34$$

$$E = -26x + 34$$

16 / ١٦

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 3 \times 7x$$

$$A = 3 \times 7 \times x$$

$$A = 21x$$

$$B = 3 \times 4x$$

$$B = 3 \times 4 \times x$$

$$B = 12x$$

$$C = (2x - 3) \times 5 + 7x$$

$$C = 2x \times 5 - 3 \times 5 + 7x$$

$$C = 2 \times x \times 5 - 15 + 7x$$

$$C = 2 \times 5 \times x + 7x - 15$$

$$C = 10x + 7x - 15$$

$$C = (10 + 7)x - 15$$

$$C = 17x - 15$$

$$D = 10 \times (8x + 4) + 5$$

$$D = 10 \times 8x + 10 \times 4 + 5$$

$$D = 10 \times 8 \times x + 40 + 5$$

$$D = 80x + 45$$

$$E = 4 \times (-10x + 2) + x - 10$$

$$E = 4 \times (-10x) + 4 \times 2 + x - 10$$

$$E = 4 \times (-10) \times x + 8 + x - 10$$

$$E = -40x + x + 8 - 10$$

$$E = (-40 + 1)x - 2$$

$$E = -39x - 2$$

17 / ١٧

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 5x \times 9$$

$$A = 5 \times x \times 9$$

$$A = 5 \times 9 \times x$$

$$A = 45x$$

$$B = 9x \times 7$$

$$B = 9 \times x \times 7$$

$$B = 9 \times 7 \times x$$

$$B = 63x$$

$$C = 10 \times (-9x + 1) + 8x - 5$$

$$C = 10 \times (-9x) + 10 \times 1 + 8x - 5$$

$$C = 10 \times (-9) \times x + 10 + 8x - 5$$

$$C = -90x + 8x + 10 - 5$$

$$C = (-90 + 8)x + 5$$

$$C = -82x + 5$$

$$D = -9 + (3x + 1) \times 7$$

$$D = -9 + 3x \times 7 + 1 \times 7$$

$$D = -9 + 3 \times x \times 7 + 7$$

$$D = -9 + 3 \times 7 \times x + 7$$

$$D = -9 + 21x + 7$$

$$D = 21x - 9 + 7$$

$$D = 21x - 2$$

$$E = 4x + (6x - 6) \times 5$$

$$E = 4x + 6x \times 5 - 6 \times 5$$

$$E = 4x + 6 \times x \times 5 - 30$$

$$E = 4x + 6 \times 5 \times x - 30$$

$$E = 4x + 30x - 30$$

$$E = (4 + 30)x - 30$$

$$E = 34x - 30$$

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 4 \times 4x$$

$$A = 4 \times 4 \times x$$

$$A = 16x$$

$$B = 2x \times 6$$

$$B = 2 \times x \times 6$$

$$B = 2 \times 6 \times x$$

$$B = 12x$$

$$C = (-x - 3) \times 6 + 8x - 6$$

$$C = -x \times 6 - 3 \times 6 + 8x - 6$$

$$C = -1 \times x \times 6 - 18 + 8x - 6$$

$$C = -1 \times 6 \times x + 8x - 18 - 6$$

$$C = -6x + 8x - 18 - 6$$

$$C = (-6 + 8)x - 24$$

$$C = 2x - 24$$

$$D = 3x + (-3x - 4) \times 8$$

$$D = 3x - 3x \times 8 - 4 \times 8$$

$$D = 3x - 3 \times x \times 8 - 32$$

$$D = 3x - 3 \times 8 \times x - 32$$

$$D = 3x - 24x - 32$$

$$D = (3 - 24)x - 32$$

$$D = -21x - 32$$

$$E = -3 + (-7x - 9) \times 6$$

$$E = -3 - 7x \times 6 - 9 \times 6$$

$$E = -3 - 7 \times x \times 6 - 54$$

$$E = -3 - 7 \times 6 \times x - 54$$

$$E = -3 - 42x - 54$$

$$E = -42x - 3 - 54$$

$$E = -42x - 57$$

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 2 \times 8x$$

$$A = 2 \times 8 \times x$$

$$A = 16x$$

$$B = 3 \times 3x$$

$$B = 3 \times 3 \times x$$

$$B = 9x$$

$$C = 4 \times (3x + 1) + 2$$

$$C = 4 \times 3x + 4 \times 1 + 2$$

$$C = 4 \times 3 \times x + 4 + 2$$

$$C = 12x + 6$$

$$D = (-3x + 6) \times 9 + 6x$$

$$D = -3x \times 9 + 6 \times 9 + 6x$$

$$D = -3 \times x \times 9 + 54 + 6x$$

$$D = -3 \times 9 \times x + 6x + 54$$

$$D = -27x + 6x + 54$$

$$D = (-27 + 6)x + 54$$

$$D = -21x + 54$$

$$E = 8x - 3 + 8 \times (7x + 7)$$

$$E = 8x - 3 + 8 \times 7x + 8 \times 7$$

$$E = 8x - 3 + 8 \times 7 \times x + 56$$

$$E = 8x - 3 + 56x + 56$$

$$E = 8x + 56x - 3 + 56$$

$$E = (8 + 56)x + 53$$

$$E = 64x + 53$$

1 / التمرين 1

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 6x$$

$$A = x \times 6 \times x$$

$$A = 6 \times x \times x$$

$$A = 6x^2$$

$$B = 5x \times 5x$$

$$B = 5 \times x \times 5 \times x$$

$$B = 5 \times 5 \times x \times x$$

$$B = 25x^2$$

$$C = (4x + 4) \times (8x + 9) - 2$$

$$C = 4x \times 8x + 4x \times 9 + 4 \times 8x + 4 \times 9 - 2$$

$$C = 4 \times x \times 8 \times x + 4 \times x \times 9 + 4 \times 8 \times x + 36 - 2$$

$$C = 4 \times 8 \times x \times x + 4 \times 9 \times x + 32x + 34$$

$$C = 32x^2 + 36x + 32x + 34$$

$$C = 32x^2 + (36 + 32)x + 34$$

$$C = 32x^2 + 68x + 34$$

$$D = 9x^2 + (2x - 9) \times (-9x + 7)$$

$$D = 9x^2 + 2x \times (-9x) + 2x \times 7 - 9 \times (-9x) - 9 \times 7$$

$$D = 9x^2 + 2 \times x \times (-9) \times x + 2 \times x \times 7 - 9 \times (-9) \times x - 63$$

$$D = 9x^2 + 2 \times (-9) \times x \times x + 2 \times 7 \times x + 81x - 63$$

$$D = 9x^2 - 18x^2 + 14x + 81x - 63$$

$$D = (9 - 18)x^2 + (14 + 81)x - 63$$

$$D = -9x^2 + 95x - 63$$

$$E = (4x - 9) \times (9x - 3) - 10x - 5$$

$$E = 4x \times 9x + 4x \times (-3) - 9 \times 9x - 9 \times (-3) - 10x - 5$$

$$E = 4 \times x \times 9 \times x + 4 \times x \times (-3) - 9 \times 9 \times x + 27 - 10x - 5$$

$$E = 4 \times 9 \times x \times x + 4 \times (-3) \times x - 81x - 10x + 27 - 5$$

$$E = 36x^2 - 12x + (-81 - 10)x + 22$$

$$E = 36x^2 + (-12 + (-81) - 10)x + 22$$

$$E = 36x^2 - 103x + 22$$

2 / التمرين 2

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 3x \times x$$

$$A = 3 \times x \times x$$

$$A = 3x^2$$

$$B = 2x \times 5x$$

$$B = 2 \times x \times 5 \times x$$

$$B = 2 \times 5 \times x \times x$$

$$B = 10x^2$$

$$C = 9x^2 + (-2x - 2) \times (2x - 3)$$

$$C = 9x^2 - 2x \times 2x - 2x \times (-3) - 2 \times 2x - 2 \times (-3)$$

$$C = 9x^2 - 2 \times x \times 2 \times x - 2 \times x \times (-3) - 2 \times 2 \times x + 6$$

$$C = 9x^2 - 2 \times 2 \times x \times x - 2 \times (-3) \times x - 4x + 6$$

$$C = 9x^2 - 4x^2 - (-6x) - 4x + 6$$

$$C = 5x^2 + 6x - 4x + 6$$

$$C = 5x^2 + (6 - 4)x + 6$$

$$C = 5x^2 + 2x + 6$$

$$D = 1 + (-7x + 2) \times (8x + 4)$$

$$D = 1 - 7x \times 8x - 7x \times 4 + 2 \times 8x + 2 \times 4$$

$$D = 1 - 7 \times x \times 8 \times x - 7 \times x \times 4 + 2 \times 8 \times x + 8$$

$$D = 1 - 7 \times 8 \times x \times x - 7 \times 4 \times x + 16x + 8$$

$$D = 1 - 56x^2 - 28x + 16x + 8$$

$$D = -56x^2 - 28x + 1 + 16x + 8$$

$$D = -56x^2 - 28x + 16x + 1 + 8$$

$$D = -56x^2 + (-28 + 16)x + 9$$

$$D = -56x^2 - 12x + 9$$

$$E = x + 9 + (-4x + 3) \times (8x - 7)$$

$$E = x + 9 - 4x \times 8x - 4x \times (-7) + 3 \times 8x + 3 \times (-7)$$

$$E = x + 9 - 4 \times x \times 8 \times x - 4 \times x \times (-7) + 3 \times 8 \times x - 21$$

$$E = x + 9 - 4 \times 8 \times x \times x - 4 \times (-7) \times x + 24x - 21$$

$$E = x + 9 - 32x^2 - (-28x) + 24x - 21$$

$$E = -32x^2 + x + 28x + 9 + 24x - 21$$

$$E = -32x^2 + x + 28x + 24x + 9 - 21$$

$$E = -32x^2 + (1 + 28 + 24)x - 12$$

$$E = -32x^2 + 53x - 12$$

3 / التمرين 3

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$A = x \times 4 \times x$$

$$A = 4 \times x \times x$$

$$A = 4x^2$$

$$B = 5x \times 7x$$

$$B = 5 \times x \times 7 \times x$$

$$B = 5 \times 7 \times x \times x$$

$$B = 35x^2$$

$$C = (3x + 7) \times (8x - 4) - 2$$

$$C = 3x \times 8x + 3x \times (-4) + 7 \times 8x + 7 \times (-4) - 2$$

$$C = 3 \times x \times 8 \times x + 3 \times x \times (-4) + 7 \times 8 \times x - 28 - 2$$

$$C = 3 \times 8 \times x \times x + 3 \times (-4) \times x + 56x - 30$$

$$C = 24x^2 - 12x + 56x - 30$$

$$C = 24x^2 + (-12 + 56)x - 30$$

$$C = 24x^2 + 44x - 30$$

$$D = (8x - 9) \times (-5x + 4) - 4x - 1$$

$$D = 8x \times (-5x) + 8x \times 4 - 9 \times (-5x) - 9 \times 4 - 4x - 1$$

$$D = 8 \times x \times (-5) \times x + 8 \times x \times 4 - 9 \times (-5) \times x - 36 - 4x - 1$$

$$D = 8 \times (-5) \times x \times x + 8 \times 4 \times x + 45x - 4x - 36 - 1$$

$$D = -40x^2 + 32x + (45 - 4)x - 37$$

$$D = -40x^2 + (32 + 45 - 4)x - 37$$

$$D = -40x^2 + 73x - 37$$

$$E = 4x^2 + (-7x + 4) \times (4x + 3)$$

$$E = 4x^2 - 7x \times 4x - 7x \times 3 + 4 \times 4x + 4 \times 3$$

$$E = 4x^2 - 7 \times x \times 4 \times x - 7 \times x \times 3 + 4 \times 4 \times x + 12$$

$$E = 4x^2 - 7 \times 4 \times x \times x - 7 \times 3 \times x + 16x + 12$$

$$E = 4x^2 - 28x^2 - 21x + 16x + 12$$

$$E = -24x^2 - 21x + 16x + 12$$

$$E = -24x^2 + (-21 + 16)x + 12$$

$$E = -24x^2 - 5x + 12$$

4 / ٧ / ٧ /

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 7x$$

$$A = x \times 7 \times x$$

$$A = 7 \times x \times x$$

$$A = 7x^2$$

$$B = 6x \times 8x$$

$$B = 6 \times x \times 8 \times x$$

$$B = 6 \times 8 \times x \times x$$

$$B = 48x^2$$

$$C = 10x^2 + (9x - 2) \times (4x - 1)$$

$$C = 10x^2 + 9x \times 4x + 9x \times (-1) - 2 \times 4x - 2 \times (-1)$$

$$C = 10x^2 + 9 \times x \times 4 \times x + 9 \times x \times (-1) - 2 \times 4 \times x + 2$$

$$C = 10x^2 + 9 \times 4 \times x \times x + 9 \times (-1) \times x - 8x + 2$$

$$C = 10x^2 + 36x^2 - 9x - 8x + 2$$

$$C = (10 + 36)x^2 + (-9 - 8)x + 2$$

$$C = 46x^2 - 17x + 2$$

$$D = (-10x - 10) \times (-5x - 6) + x + 10$$

$$D = -10x \times (-5x) - 10x \times (-6) - 10 \times (-5x) - 10 \times (-6) + x + 10$$

$$D = -10 \times x \times (-5) \times x - 10 \times x \times (-6) - 10 \times (-5) \times x + 60 + x + 10$$

$$D = -10 \times (-5) \times x \times x - 10 \times (-6) \times x + 50x + x + 60 + 10$$

$$D = 50x^2 - (-60x) + (50 + 1)x + 70$$

$$D = 50x^2 + 60x + (50 + 1)x + 70$$

$$D = 50x^2 + (60 + 50 + 1)x + 70$$

$$D = 50x^2 + 111x + 70$$

$$E = -4 + (-8x - 5) \times (-10x + 8)$$

$$E = -4 - 8x \times (-10x) - 8x \times 8 - 5 \times (-10x) - 5 \times 8$$

$$E = -4 - 8 \times x \times (-10) \times x - 8 \times x \times 8 - 5 \times (-10) \times x - 40$$

$$E = -4 - 8 \times (-10) \times x \times x - 8 \times 8 \times x + 50x - 40$$

$$E = -4 - (-80x^2) - 64x + 50x - 40$$

$$E = 80x^2 - 64x - 4 + 50x - 40$$

$$E = 80x^2 - 64x + 50x - 4 - 40$$

$$E = 80x^2 + (-64 + 50)x - 44$$

$$E = 80x^2 - 14x - 44$$

5 / ٧ / ٧ /

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 4x \times x$$

$$A = 4 \times x \times x$$

$$A = 4x^2$$

$$B = 8x \times 3x$$

$$B = 8 \times x \times 3 \times x$$

$$B = 8 \times 3 \times x \times x$$

$$B = 24x^2$$

$$C = -4 + (-3x - 5) \times (6x - 4)$$

$$C = -4 - 3x \times 6x - 3x \times (-4) - 5 \times 6x - 5 \times (-4)$$

$$C = -4 - 3 \times x \times 6 \times x - 3 \times x \times (-4) - 5 \times 6 \times x + 20$$

$$C = -4 - 3 \times 6 \times x \times x - 3 \times (-4) \times x - 30x + 20$$

$$C = -4 - 18x^2 - (-12x) - 30x + 20$$

$$C = -18x^2 + 12x - 4 - 30x + 20$$

$$C = -18x^2 + 12x - 30x - 4 + 20$$

$$C = -18x^2 + (12 - 30)x + 16$$

$$C = -18x^2 - 18x + 16$$

$$D = -6x - 5 + (4x + 1) \times (x + 4)$$

$$D = -6x - 5 + 4x \times x + 4x \times 4 + 1 \times x + 1 \times 4$$

$$D = -6x - 5 + 4 \times x \times x + 4 \times x \times 4 + x + 4$$

$$D = -6x - 5 + 4x^2 + 4 \times 4 \times x + x + 4$$

$$D = 4x^2 - 6x - 5 + 16x + x + 4$$

$$D = 4x^2 - 6x + 16x + x - 5 + 4$$

$$D = 4x^2 + (-6 + 16 + 1)x - 1$$

$$D = 4x^2 + 11x - 1$$

$$E = -9x^2 + (3x - 1) \times (-9x + 7)$$

$$E = -9x^2 + 3x \times (-9x) + 3x \times 7 - 1 \times (-9x) - 1 \times 7$$

$$E = -9x^2 + 3 \times x \times (-9) \times x + 3 \times x \times 7 - 1 \times (-9) \times x - 7$$

$$E = -9x^2 + 3 \times (-9) \times x \times x + 3 \times 7 \times x + 9x - 7$$

$$E = -9x^2 - 27x^2 + 21x + 9x - 7$$

$$E = (-9 - 27)x^2 + (21 + 9)x - 7$$

$$E = -36x^2 + 30x - 7$$

6. التمارين

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$A = x \times 4 \times x$$

$$A = 4 \times x \times x$$

$$A = 4x^2$$

$$B = 3x \times 6x$$

$$B = 3 \times x \times 6 \times x$$

$$B = 3 \times 6 \times x \times x$$

$$B = 18x^2$$

$$C = -8x^2 + (5x - 7) \times (-4x + 1)$$

$$C = -8x^2 + 5x \times (-4x) + 5x \times 1 - 7 \times (-4x) - 7 \times 1$$

$$C = -8x^2 + 5 \times x \times (-4) \times x + 5 \times x \times 1 - 7 \times (-4) \times x - 7$$

$$C = -8x^2 + 5 \times (-4) \times x \times x + 5 \times x + 28x - 7$$

$$C = -8x^2 - 20x^2 + 5x + 28x - 7$$

$$C = (-8 - 20)x^2 + (5 + 28)x - 7$$

$$C = -28x^2 + 33x - 7$$

$$D = (3x + 9) \times (8x - 4) + 9$$

$$D = 3x \times 8x + 3x \times (-4) + 9 \times 8x + 9 \times (-4) + 9$$

$$D = 3 \times x \times 8 \times x + 3 \times x \times (-4) + 9 \times 8 \times x - 36 + 9$$

$$D = 3 \times 8 \times x \times x + 3 \times (-4) \times x + 72x - 27$$

$$D = 24x^2 - 12x + 72x - 27$$

$$D = 24x^2 + (-12 + 72)x - 27$$

$$D = 24x^2 + 60x - 27$$

$$E = 6x + 9 + (x + 8) \times (5x - 8)$$

$$E = 6x + 9 + x \times 5x + x \times (-8) + 8 \times 5x + 8 \times (-8)$$

$$E = 6x + 9 + x \times 5 \times x - 8 \times x + 8 \times 5 \times x - 64$$

$$E = 6x + 9 + 5 \times x \times x - 8x + 40x - 64$$

$$E = 6x + 9 + 5x^2 - 8x + 40x - 64$$

$$E = 5x^2 + 6x - 8x + 40x + 9 - 64$$

$$E = 5x^2 + (6 - 8 + 40)x - 55$$

$$E = 5x^2 + 38x - 55$$

7. التمارين

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 9x \times x$$

$$A = 9 \times x \times x$$

$$A = 9x^2$$

$$B = 2x \times 8x$$

$$B = 2 \times x \times 8 \times x$$

$$B = 2 \times 8 \times x \times x$$

$$B = 16x^2$$

$$C = -x^2 + (8x + 4) \times (-4x - 6)$$

$$C = -x^2 + 8x \times (-4x) + 8x \times (-6) + 4 \times (-4x) + 4 \times (-6)$$

$$C = -x^2 + 8 \times x \times (-4) \times x + 8 \times x \times (-6) + 4 \times (-4) \times x - 24$$

$$C = -x^2 + 8 \times (-4) \times x \times x + 8 \times (-6) \times x - 16x - 24$$

$$C = -x^2 - 32x^2 - 48x - 16x - 24$$

$$C = (-1 - 32)x^2 + (-48 - 16)x - 24$$

$$C = -33x^2 - 64x - 24$$

$$D = -6x + 5 + (7x - 8) \times (-7x + 1)$$

$$D = -6x + 5 + 7x \times (-7x) + 7x \times 1 - 8 \times (-7x) - 8 \times 1$$

$$D = -6x + 5 + 7 \times x \times (-7) \times x + 7 \times x \times 1 - 8 \times (-7) \times x - 8$$

$$D = -6x + 5 + 7 \times (-7) \times x \times x + 7 \times x + 56x - 8$$

$$D = -6x + 5 - 49x^2 + 7x + 56x - 8$$

$$D = -49x^2 - 6x + 7x + 56x + 5 - 8$$

$$D = -49x^2 + (-6 + 7 + 56)x - 3$$

$$D = -49x^2 + 57x - 3$$

$$E = (3x - 4) \times (-3x + 8) + 10$$

$$E = 3x \times (-3x) + 3x \times 8 - 4 \times (-3x) - 4 \times 8 + 10$$

$$E = 3 \times x \times (-3) \times x + 3 \times x \times 8 - 4 \times (-3) \times x - 32 + 10$$

$$E = 3 \times (-3) \times x \times x + 3 \times 8 \times x + 12x - 22$$

$$E = -9x^2 + 24x + 12x - 22$$

$$E = -9x^2 + (24 + 12)x - 22$$

$$E = -9x^2 + 36x - 22$$

8 / التمرين 8

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 8x \times x$$

$$A = 8 \times x \times x$$

$$A = 8x^2$$

$$B = 4x \times 8x$$

$$B = 4 \times x \times 8 \times x$$

$$B = 4 \times 8 \times x \times x$$

$$B = 32x^2$$

$$C = -8x^2 + (-2x - 5) \times (-x + 3)$$

$$C = -8x^2 - 2x \times (-x) - 2x \times 3 - 5 \times (-x) - 5 \times 3$$

$$C = -8x^2 - 2 \times x \times (-1) \times x - 2 \times x \times 3 - 5 \times (-1) \times x - 15$$

$$C = -8x^2 - 2 \times (-1) \times x \times x - 2 \times 3 \times x + 5x - 15$$

$$C = -8x^2 - (-2x^2) - 6x + 5x - 15$$

$$C = -6x^2 - 6x + 5x - 15$$

$$C = -6x^2 + (-6 + 5)x - 15$$

$$C = -6x^2 - x - 15$$

$$D = -10 + (6x - 6) \times (6x + 1)$$

$$D = -10 + 6x \times 6x + 6x \times 1 - 6 \times 6x - 6 \times 1$$

$$D = -10 + 6 \times x \times 6 \times x + 6 \times x \times 1 - 6 \times 6 \times x - 6$$

$$D = -10 + 6 \times 6 \times x \times x + 6 \times x - 36x - 6$$

$$D = -10 + 36x^2 + 6x - 36x - 6$$

$$D = 36x^2 + 6x - 36x - 10 - 6$$

$$D = 36x^2 + (6 - 36)x - 16$$

$$D = 36x^2 - 30x - 16$$

$$E = (8x - 2) \times (-8x + 3) - 9x + 10$$

$$E = 8x \times (-8x) + 8x \times 3 - 2 \times (-8x) - 2 \times 3 - 9x + 10$$

$$E = 8 \times x \times (-8) \times x + 8 \times x \times 3 - 2 \times (-8) \times x - 6 - 9x + 10$$

$$E = 8 \times (-8) \times x \times x + 8 \times 3 \times x + 16x - 9x - 6 + 10$$

$$E = -64x^2 + 24x + (16 - 9)x + 4$$

$$E = -64x^2 + (24 + 16 - 9)x + 4$$

$$E = -64x^2 + 31x + 4$$

9 / التمرين 9

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 2x$$

$$A = x \times 2 \times x$$

$$A = 2 \times x \times x$$

$$A = 2x^2$$

$$B = 5x \times 6x$$

$$B = 5 \times x \times 6 \times x$$

$$B = 5 \times 6 \times x \times x$$

$$B = 30x^2$$

$$C = x^2 + (4x + 3) \times (7x + 4)$$

$$C = x^2 + 4x \times 7x + 4x \times 4 + 3 \times 7x + 3 \times 4$$

$$C = x^2 + 4 \times x \times 7 \times x + 4 \times x \times 4 + 3 \times 7 \times x + 12$$

$$C = x^2 + 4 \times 7 \times x \times x + 4 \times 4 \times x + 21x + 12$$

$$C = x^2 + 28x^2 + 16x + 21x + 12$$

$$C = (1 + 28)x^2 + (16 + 21)x + 12$$

$$C = 29x^2 + 37x + 12$$

$$D = (-5x + 6) \times (7x - 4) + 6$$

$$D = -5x \times 7x - 5x \times (-4) + 6 \times 7x + 6 \times (-4) + 6$$

$$D = -5 \times x \times 7 \times x - 5 \times x \times (-4) + 6 \times 7 \times x - 24 + 6$$

$$D = -5 \times 7 \times x \times x - 5 \times (-4) \times x + 42x - 18$$

$$D = -35x^2 - (-20x) + 42x - 18$$

$$D = -35x^2 + 20x + 42x - 18$$

$$D = -35x^2 + (20 + 42)x - 18$$

$$D = -35x^2 + 62x - 18$$

$$E = 10x + 6 + (10x - 9) \times (-3x - 3)$$

$$E = 10x + 6 + 10x \times (-3x) + 10x \times (-3) - 9 \times (-3x) - 9 \times (-3)$$

$$E = 10x + 6 + 10 \times x \times (-3) \times x + 10 \times x \times (-3) - 9 \times (-3) \times x + 27$$

$$E = 10x + 6 + 10 \times (-3) \times x \times x + 10 \times (-3) \times x + 27x + 27$$

$$E = 10x + 6 - 30x^2 - 30x + 27x + 27$$

$$E = -30x^2 + 10x - 30x + 27x + 6 + 27$$

$$E = -30x^2 + (10 - 30 + 27)x + 33$$

$$E = -30x^2 + 7x + 33$$

10 / ١٠

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 7x \times x$$

$$A = 7 \times x \times x$$

$$A = 7x^2$$

$$B = 8x \times 8x$$

$$B = 8 \times x \times 8 \times x$$

$$B = 8 \times 8 \times x \times x$$

$$B = 64x^2$$

$$C = (-5x - 8) \times (3x + 8) + 1$$

$$C = -5x \times 3x - 5x \times 8 - 8 \times 3x - 8 \times 8 + 1$$

$$C = -5 \times x \times 3 \times x - 5 \times x \times 8 - 8 \times 3 \times x - 64 + 1$$

$$C = -5 \times 3 \times x \times x - 5 \times 8 \times x - 24x - 63$$

$$C = -15x^2 - 40x - 24x - 63$$

$$C = -15x^2 + (-40 - 24)x - 63$$

$$C = -15x^2 - 64x - 63$$

$$D = -2x^2 + (2x + 2) \times (10x + 5)$$

$$D = -2x^2 + 2x \times 10x + 2x \times 5 + 2 \times 10x + 2 \times 5$$

$$D = -2x^2 + 2 \times x \times 10 \times x + 2 \times x \times 5 + 2 \times 10 \times x + 10$$

$$D = -2x^2 + 2 \times 10 \times x \times x + 2 \times 5 \times x + 20x + 10$$

$$D = -2x^2 + 20x^2 + 10x + 20x + 10$$

$$D = (-2 + 20)x^2 + (10 + 20)x + 10$$

$$D = 18x^2 + 30x + 10$$

$$E = (-2x - 3) \times (-3x - 1) - 6x - 4$$

$$E = -2x \times (-3x) - 2x \times (-1) - 3 \times (-3x) - 3 \times (-1) - 6x - 4$$

$$E = -2 \times x \times (-3) \times x - 2 \times x \times (-1) - 3 \times (-3) \times x + 3 - 6x - 4$$

$$E = -2 \times (-3) \times x \times x - 2 \times (-1) \times x + 9x - 6x + 3 - 4$$

$$E = 6x^2 - (-2x) + (9 - 6)x - 1$$

$$E = 6x^2 + 2x + (9 - 6)x - 1$$

$$E = 6x^2 + (2 + 9 - 6)x - 1$$

$$E = 6x^2 + 5x - 1$$

11 / ١١

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$A = x \times 4 \times x$$

$$A = 4 \times x \times x$$

$$A = 4x^2$$

$$B = 9x \times 4x$$

$$B = 9 \times x \times 4 \times x$$

$$B = 9 \times 4 \times x \times x$$

$$B = 36x^2$$

$$C = 7x^2 + (6x - 5) \times (-x - 2)$$

$$C = 7x^2 + 6x \times (-x) + 6x \times (-2) - 5 \times (-x) - 5 \times (-2)$$

$$C = 7x^2 + 6 \times x \times (-1) \times x + 6 \times x \times (-2) - 5 \times (-1) \times x + 10$$

$$C = 7x^2 + 6 \times (-1) \times x \times x + 6 \times (-2) \times x + 5x + 10$$

$$C = 7x^2 - 6x^2 - 12x + 5x + 10$$

$$C = (7 - 6)x^2 + (-12 + 5)x + 10$$

$$C = x^2 - 7x + 10$$

$$D = 7 + (-x - 9) \times (2x + 9)$$

$$D = 7 - x \times 2x - x \times 9 - 9 \times 2x - 9 \times 9$$

$$D = 7 - 1 \times x \times 2 \times x - 1 \times x \times 9 - 9 \times 2 \times x - 81$$

$$D = 7 - 1 \times 2 \times x \times x - 1 \times 9 \times x - 18x - 81$$

$$D = 7 - 2x^2 - 9x - 18x - 81$$

$$D = -2x^2 - 9x + 7 - 18x - 81$$

$$D = -2x^2 - 9x - 18x + 7 - 81$$

$$D = -2x^2 + (-9 - 18)x - 74$$

$$D = -2x^2 - 27x - 74$$

$$E = -3x + 3 + (7x - 2) \times (7x + 8)$$

$$E = -3x + 3 + 7x \times 7x + 7x \times 8 - 2 \times 7x - 2 \times 8$$

$$E = -3x + 3 + 7 \times x \times 7 \times x + 7 \times x \times 8 - 2 \times 7 \times x - 16$$

$$E = -3x + 3 + 7 \times 7 \times x \times x + 7 \times 8 \times x - 14x - 16$$

$$E = -3x + 3 + 49x^2 + 56x - 14x - 16$$

$$E = 49x^2 - 3x + 56x - 14x + 3 - 16$$

$$E = 49x^2 + (-3 + 56 - 14)x - 13$$

$$E = 49x^2 + 39x - 13$$

12 / تمرين

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 3x$$

$$A = x \times 3 \times x$$

$$A = 3 \times x \times x$$

$$A = 3x^2$$

$$B = 8x \times 6x$$

$$B = 8 \times x \times 6 \times x$$

$$B = 8 \times 6 \times x \times x$$

$$B = 48x^2$$

$$C = (4x - 10) \times (2x - 9) - 8$$

$$C = 4x \times 2x + 4x \times (-9) - 10 \times 2x - 10 \times (-9) - 8$$

$$C = 4 \times x \times 2 \times x + 4 \times x \times (-9) - 10 \times 2 \times x + 90 - 8$$

$$C = 4 \times 2 \times x \times x + 4 \times (-9) \times x - 20x + 82$$

$$C = 8x^2 - 36x - 20x + 82$$

$$C = 8x^2 + (-36 - 20)x + 82$$

$$C = 8x^2 - 56x + 82$$

$$D = (-7x - 2) \times (-3x + 4) - 4x + 8$$

$$D = -7x \times (-3x) - 7x \times 4 - 2 \times (-3x) - 2 \times 4 - 4x + 8$$

$$D = -7 \times x \times (-3) \times x - 7 \times x \times 4 - 2 \times (-3) \times x - 8 - 4x + 8$$

$$D = -7 \times (-3) \times x \times x - 7 \times 4 \times x + 6x - 4x - 8 + 8$$

$$D = 21x^2 - 28x + (6 - 4)x$$

$$D = 21x^2 + (-28 + 6 - 4)x$$

$$D = 21x^2 - 26x$$

$$E = (7x - 2) \times (-10x + 6) + 2x^2$$

$$E = 7x \times (-10x) + 7x \times 6 - 2 \times (-10x) - 2 \times 6 + 2x^2$$

$$E = 7 \times x \times (-10) \times x + 7 \times x \times 6 - 2 \times (-10) \times x - 12 + 2x^2$$

$$E = 7 \times (-10) \times x \times x + 7 \times 6 \times x + 20x + 2x^2 - 12$$

$$E = -70x^2 + 42x + 2x^2 + 20x - 12$$

$$E = -70x^2 + 2x^2 + 42x + 20x - 12$$

$$E = (-70 + 2)x^2 + (42 + 20)x - 12$$

$$E = -68x^2 + 62x - 12$$

13 / تمرين

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 8x \times x$$

$$A = 8 \times x \times x$$

$$A = 8x^2$$

$$B = 2x \times 9x$$

$$B = 2 \times x \times 9 \times x$$

$$B = 2 \times 9 \times x \times x$$

$$B = 18x^2$$

$$C = -10x - 4 + (-8x + 1) \times (-4x + 4)$$

$$C = -10x - 4 - 8x \times (-4x) - 8x \times 4 + 1 \times (-4x) + 1 \times 4$$

$$C = -10x - 4 - 8 \times x \times (-4) \times x - 8 \times x \times 4 + 1 \times (-4) \times x + 4$$

$$C = -10x - 4 - 8 \times (-4) \times x \times x - 8 \times 4 \times x - 4x + 4$$

$$C = -10x - 4 - (-32x^2) - 32x - 4x + 4$$

$$C = 32x^2 - 10x - 32x - 4 - 4x + 4$$

$$C = 32x^2 - 10x - 32x - 4x - 4 + 4$$

$$C = 32x^2 + (-10 - 32 - 4)x$$

$$C = 32x^2 - 46x$$

$$D = (-7x + 3) \times (8x - 10) + 4x^2$$

$$D = -7x \times 8x - 7x \times (-10) + 3 \times 8x + 3 \times (-10) + 4x^2$$

$$D = -7 \times x \times 8 \times x - 7 \times x \times (-10) + 3 \times 8 \times x - 30 + 4x^2$$

$$D = -7 \times 8 \times x \times x - 7 \times (-10) \times x + 24x + 4x^2 - 30$$

$$D = -56x^2 - (-70x) + 4x^2 + 24x - 30$$

$$D = -56x^2 + 70x + 4x^2 + 24x - 30$$

$$D = -56x^2 + 4x^2 + 70x + 24x - 30$$

$$D = (-56 + 4)x^2 + (70 + 24)x - 30$$

$$D = -52x^2 + 94x - 30$$

$$E = 10 + (-9x - 9) \times (-7x - 5)$$

$$E = 10 - 9x \times (-7x) - 9x \times (-5) - 9 \times (-7x) - 9 \times (-5)$$

$$E = 10 - 9 \times x \times (-7) \times x - 9 \times x \times (-5) - 9 \times (-7) \times x + 45$$

$$E = 10 - 9 \times (-7) \times x \times x - 9 \times (-5) \times x + 63x + 45$$

$$E = 10 - (-63x^2) - (-45x) + 63x + 45$$

$$E = 63x^2 + 45x + 10 + 63x + 45$$

$$E = 63x^2 + 45x + 63x + 10 + 45$$

$$E = 63x^2 + (45 + 63)x + 55$$

$$E = 63x^2 + 108x + 55$$

14 /

انشر ثم بسّط العبارات الحرفية التالية :

$$A = x \times 4x$$

$$A = x \times 4 \times x$$

$$A = 4 \times x \times x$$

$$A = 4x^2$$

$$B = 8x \times 3x$$

$$B = 8 \times x \times 3 \times x$$

$$B = 8 \times 3 \times x \times x$$

$$B = 24x^2$$

$$C = -9 + (-9x + 9) \times (-x - 4)$$

$$C = -9 - 9x \times (-x) - 9x \times (-4) + 9 \times (-x) + 9 \times (-4)$$

$$C = -9 - 9 \times x \times (-1) \times x - 9 \times x \times (-4) + 9 \times (-1) \times x - 36$$

$$C = -9 - 9 \times (-1) \times x \times x - 9 \times (-4) \times x - 9x - 36$$

$$C = -9 - (-9x^2) - (-36x) - 9x - 36$$

$$C = 9x^2 + 36x - 9 - 9x - 36$$

$$C = 9x^2 + 36x - 9x - 9 - 36$$

$$C = 9x^2 + (36 - 9)x - 45$$

$$C = 9x^2 + 27x - 45$$

$$D = (9x + 1) \times (x - 9) + 5x^2$$

$$D = 9x \times x + 9x \times (-9) + 1 \times x + 1 \times (-9) + 5x^2$$

$$D = 9 \times x \times x + 9 \times x \times (-9) + x - 9 + 5x^2$$

$$D = 9x^2 + 9 \times (-9) \times x + 5x^2 + x - 9$$

$$D = 9x^2 - 81x + 5x^2 + x - 9$$

$$D = 9x^2 + 5x^2 - 81x + x - 9$$

$$D = (9 + 5)x^2 + (-81 + 1)x - 9$$

$$D = 14x^2 - 80x - 9$$

$$E = (8x + 4) \times (5x + 6) + 6x + 3$$

$$E = 8x \times 5x + 8x \times 6 + 4 \times 5x + 4 \times 6 + 6x + 3$$

$$E = 8 \times x \times 5 \times x + 8 \times x \times 6 + 4 \times 5 \times x + 24 + 6x + 3$$

$$E = 8 \times 5 \times x \times x + 8 \times 6 \times x + 20x + 6x + 24 + 3$$

$$E = 40x^2 + 48x + (20 + 6)x + 27$$

$$E = 40x^2 + (48 + 20 + 6)x + 27$$

$$E = 40x^2 + 74x + 27$$

15 /

انشر ثم بسّط العبارات الحرفية التالية :

$$A = 3x \times x$$

$$A = 3 \times x \times x$$

$$A = 3x^2$$

$$B = 4x \times 4x$$

$$B = 4 \times x \times 4 \times x$$

$$B = 4 \times 4 \times x \times x$$

$$B = 16x^2$$

$$C = 6 + (10x - 2) \times (-6x - 2)$$

$$C = 6 + 10x \times (-6x) + 10x \times (-2) - 2 \times (-6x) - 2 \times (-2)$$

$$C = 6 + 10 \times x \times (-6) \times x + 10 \times x \times (-2) - 2 \times (-6) \times x + 4$$

$$C = 6 + 10 \times (-6) \times x \times x + 10 \times (-2) \times x + 12x + 4$$

$$C = 6 - 60x^2 - 20x + 12x + 4$$

$$C = -60x^2 - 20x + 12x + 6 + 4$$

$$C = -60x^2 + (-20 + 12)x + 10$$

$$C = -60x^2 - 8x + 10$$

$$D = x^2 + (2x - 9) \times (-3x - 1)$$

$$D = x^2 + 2x \times (-3x) + 2x \times (-1) - 9 \times (-3x) - 9 \times (-1)$$

$$D = x^2 + 2 \times x \times (-3) \times x + 2 \times x \times (-1) - 9 \times (-3) \times x + 9$$

$$D = x^2 + 2 \times (-3) \times x \times x + 2 \times (-1) \times x + 27x + 9$$

$$D = x^2 - 6x^2 - 2x + 27x + 9$$

$$D = (1 - 6)x^2 + (-2 + 27)x + 9$$

$$D = -5x^2 + 25x + 9$$

$$E = -7x + 1 + (-3x - 4) \times (10x + 3)$$

$$E = -7x + 1 - 3x \times 10x - 3x \times 3 - 4 \times 10x - 4 \times 3$$

$$E = -7x + 1 - 3 \times x \times 10 \times x - 3 \times x \times 3 - 4 \times 10 \times x - 12$$

$$E = -7x + 1 - 3 \times 10 \times x \times x - 3 \times 3 \times x - 40x - 12$$

$$E = -7x + 1 - 30x^2 - 9x - 40x - 12$$

$$E = -30x^2 - 7x - 9x + 1 - 40x - 12$$

$$E = -30x^2 - 7x - 9x - 40x + 1 - 12$$

$$E = -30x^2 + (-7 - 9 - 40)x - 11$$

$$E = -30x^2 - 56x - 11$$

16 / التمرين 16

انشر ثم ببسط العبارات الحرفية التالية :

$$A = x \times 7x$$

$$A = x \times 7 \times x$$

$$A = 7 \times x \times x$$

$$A = 7x^2$$

$$B = 7x \times 5x$$

$$B = 7 \times x \times 5 \times x$$

$$B = 7 \times 5 \times x \times x$$

$$B = 35x^2$$

$$C = 3 + (9x + 7) \times (5x - 7)$$

$$C = 3 + 9x \times 5x + 9x \times (-7) + 7 \times 5x + 7 \times (-7)$$

$$C = 3 + 9 \times x \times 5 \times x + 9 \times x \times (-7) + 7 \times 5 \times x - 49$$

$$C = 3 + 9 \times 5 \times x \times x + 9 \times (-7) \times x + 35x - 49$$

$$C = 3 + 45x^2 - 63x + 35x - 49$$

$$C = 45x^2 - 63x + 35x + 3 - 49$$

$$C = 45x^2 + (-63 + 35)x - 46$$

$$C = 45x^2 - 28x - 46$$

$$D = (-x - 1) \times (5x + 10) + 9x + 4$$

$$D = -x \times 5x - x \times 10 - 1 \times 5x - 1 \times 10 + 9x + 4$$

$$D = -1 \times x \times 5 \times x - 1 \times x \times 10 - 1 \times 5 \times x - 10 + 9x + 4$$

$$D = -1 \times 5 \times x \times x - 1 \times 10 \times x - 5x + 9x - 10 + 4$$

$$D = -5x^2 - 10x + (-5 + 9)x - 6$$

$$D = -5x^2 + (-10 + (-5) + 9)x - 6$$

$$D = -5x^2 - 6x - 6$$

$$E = (4x - 8) \times (6x + 7) - 5x^2$$

$$E = 4x \times 6x + 4x \times 7 - 8 \times 6x - 8 \times 7 - 5x^2$$

$$E = 4 \times x \times 6 \times x + 4 \times x \times 7 - 8 \times 6 \times x - 56 - 5x^2$$

$$E = 4 \times 6 \times x \times x + 4 \times 7 \times x - 48x - 5x^2 - 56$$

$$E = 24x^2 + 28x - 48x - 5x^2 - 56$$

$$E = 24x^2 - 5x^2 + 28x - 48x - 56$$

$$E = (24 - 5)x^2 + (28 - 48)x - 56$$

$$E = 19x^2 - 20x - 56$$

17 / التمرين 17

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 7x \times x$$

$$A = 7 \times x \times x$$

$$A = 7x^2$$

$$B = 2x \times 6x$$

$$B = 2 \times x \times 6 \times x$$

$$B = 2 \times 6 \times x \times x$$

$$B = 12x^2$$

$$C = 3 + (-6x + 10) \times (3x + 1)$$

$$C = 3 - 6x \times 3x - 6x \times 1 + 10 \times 3x + 10 \times 1$$

$$C = 3 - 6 \times x \times 3 \times x - 6 \times x \times 1 + 10 \times 3 \times x + 10$$

$$C = 3 - 6 \times 3 \times x \times x - 6 \times x + 30x + 10$$

$$C = 3 - 18x^2 - 6x + 30x + 10$$

$$C = -18x^2 - 6x + 3 + 30x + 10$$

$$C = -18x^2 - 6x + 30x + 3 + 10$$

$$C = -18x^2 + (-6 + 30)x + 13$$

$$C = -18x^2 + 24x + 13$$

$$D = (-8x - 9) \times (x - 5) + 2x - 10$$

$$D = -8x \times x - 8x \times (-5) - 9 \times x - 9 \times (-5) + 2x - 10$$

$$D = -8 \times x \times x - 8 \times x \times (-5) - 9x + 45 + 2x - 10$$

$$D = -8x^2 - 8 \times (-5) \times x - 9x + 2x + 45 - 10$$

$$D = -8x^2 - (-40x) - 9x + 2x + 45 - 10$$

$$D = -8x^2 + 40x - 9x + 2x + 45 - 10$$

$$D = -8x^2 + (40 - 9 + 2)x + 35$$

$$D = -8x^2 + 33x + 35$$

$$E = (-3x - 2) \times (x - 9) - 8x^2$$

$$E = -3x \times x - 3x \times (-9) - 2 \times x - 2 \times (-9) - 8x^2$$

$$E = -3 \times x \times x - 3 \times x \times (-9) - 2x + 18 - 8x^2$$

$$E = -3x^2 - 3 \times (-9) \times x - 8x^2 - 2x + 18$$

$$E = -3x^2 - (-27x) - 8x^2 - 2x + 18$$

$$E = -3x^2 + 27x - 8x^2 - 2x + 18$$

$$E = -3x^2 - 8x^2 + 27x - 2x + 18$$

$$E = (-3 - 8)x^2 + (27 - 2)x + 18$$

$$E = -11x^2 + 25x + 18$$

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 4x \times x$$

$$A = 4 \times x \times x$$

$$A = 4x^2$$

$$B = 6x \times 5x$$

$$B = 6 \times x \times 5 \times x$$

$$B = 6 \times 5 \times x \times x$$

$$B = 30x^2$$

$$C = 2 + (-4x + 6) \times (9x - 9)$$

$$C = 2 - 4x \times 9x - 4x \times (-9) + 6 \times 9x + 6 \times (-9)$$

$$C = 2 - 4 \times x \times 9 \times x - 4 \times x \times (-9) + 6 \times 9 \times x - 54$$

$$C = 2 - 4 \times 9 \times x \times x - 4 \times (-9) \times x + 54x - 54$$

$$C = 2 - 36x^2 - (-36x) + 54x - 54$$

$$C = -36x^2 + 36x + 2 + 54x - 54$$

$$C = -36x^2 + 36x + 54x + 2 - 54$$

$$C = -36x^2 + (36 + 54)x - 52$$

$$C = -36x^2 + 90x - 52$$

$$D = 10x^2 + (-6x + 10) \times (-x - 2)$$

$$D = 10x^2 - 6x \times (-x) - 6x \times (-2) + 10 \times (-x) + 10 \times (-2)$$

$$D = 10x^2 - 6 \times x \times (-1) \times x - 6 \times x \times (-2) + 10 \times (-1) \times x - 20$$

$$D = 10x^2 - 6 \times (-1) \times x \times x - 6 \times (-2) \times x - 10x - 20$$

$$D = 10x^2 - (-6x^2) - (-12x) - 10x - 20$$

$$D = 16x^2 + 12x - 10x - 20$$

$$D = 16x^2 + (12 - 10)x - 20$$

$$D = 16x^2 + 2x - 20$$

$$E = (-5x - 9) \times (-3x + 9) + 7x + 5$$

$$E = -5x \times (-3x) - 5x \times 9 - 9 \times (-3x) - 9 \times 9 + 7x + 5$$

$$E = -5 \times x \times (-3) \times x - 5 \times x \times 9 - 9 \times (-3) \times x - 81 + 7x + 5$$

$$E = -5 \times (-3) \times x \times x - 5 \times 9 \times x + 27x + 7x - 81 + 5$$

$$E = 15x^2 - 45x + (27 + 7)x - 76$$

$$E = 15x^2 + (-45 + 27 + 7)x - 76$$

$$E = 15x^2 - 11x - 76$$

انشر ثم ببسط العبارات الحرفية التالية :

$$A = 5x \times x$$

$$A = 5 \times x \times x$$

$$A = 5x^2$$

$$B = 9x \times 8x$$

$$B = 9 \times x \times 8 \times x$$

$$B = 9 \times 8 \times x \times x$$

$$B = 72x^2$$

$$C = -3x^2 + (3x + 4) \times (-5x + 6)$$

$$C = -3x^2 + 3x \times (-5x) + 3x \times 6 + 4 \times (-5x) + 4 \times 6$$

$$C = -3x^2 + 3 \times x \times (-5) \times x + 3 \times x \times 6 + 4 \times (-5) \times x + 24$$

$$C = -3x^2 + 3 \times (-5) \times x \times x + 3 \times 6 \times x - 20x + 24$$

$$C = -3x^2 - 15x^2 + 18x - 20x + 24$$

$$C = (-3 - 15)x^2 + (18 - 20)x + 24$$

$$C = -18x^2 - 2x + 24$$

$$D = 3x + 2 + (-10x + 7) \times (10x - 1)$$

$$D = 3x + 2 - 10x \times 10x - 10x \times (-1) + 7 \times 10x + 7 \times (-1)$$

$$D = 3x + 2 - 10 \times x \times 10 \times x - 10 \times x \times (-1) + 7 \times 10 \times x - 7$$

$$D = 3x + 2 - 10 \times 10 \times x \times x - 10 \times (-1) \times x + 70x - 7$$

$$D = 3x + 2 - 100x^2 - (-10x) + 70x - 7$$

$$D = -100x^2 + 3x + 10x + 2 + 70x - 7$$

$$D = -100x^2 + 3x + 10x + 70x + 2 - 7$$

$$D = -100x^2 + (3 + 10 + 70)x - 5$$

$$D = -100x^2 + 83x - 5$$

$$E = 4 + (7x - 2) \times (2x + 5)$$

$$E = 4 + 7x \times 2x + 7x \times 5 - 2 \times 2x - 2 \times 5$$

$$E = 4 + 7 \times x \times 2 \times x + 7 \times x \times 5 - 2 \times 2 \times x - 10$$

$$E = 4 + 7 \times 2 \times x \times x + 7 \times 5 \times x - 4x - 10$$

$$E = 4 + 14x^2 + 35x - 4x - 10$$

$$E = 14x^2 + 35x - 4x + 4 - 10$$

$$E = 14x^2 + (35 - 4)x - 6$$

$$E = 14x^2 + 31x - 6$$