احسب ثم بسط النتيجة إن أمكن.

1. $\frac{56}{99} \times \frac{22}{63} = \dots$
2. $\frac{39}{104} \times \frac{26}{117} = \dots$
3. $\frac{15}{78} \times \frac{13}{24} = \dots$
4. $11 \times \frac{6}{55} = \dots$
5. $\frac{7}{110} \times \frac{44}{35} = \dots$
6. $5 \times \frac{39}{40} = \dots$
7. $\frac{39}{55} \times \frac{22}{39} = \dots$
8. $\frac{3}{40} \times \frac{25}{27} = \dots$
9. $\frac{7}{78} \times \frac{39}{49} = \dots$
10. $\frac{66}{104} \times \frac{65}{88} = \dots$
11. $65 \times \frac{3}{104} = \dots$
12. $\frac{49}{40} \times \frac{5}{35} = \dots$
13. $117 \times \frac{42}{91} = \dots$
14. $\frac{66}{24} \times \frac{15}{66} = \dots$
15. $\frac{9}{24} \times \frac{6}{27} = \dots$
16. $\frac{26}{21} \times \frac{63}{130} = \dots$
17. $117 \times \frac{21}{91} = \dots$
18. $\frac{33}{21} \times \frac{15}{77} = \dots$
19. $\frac{33}{27} \times \frac{6}{33} = \dots$
20. $\frac{10}{42} \times \frac{7}{30} = \dots$
21. $\frac{91}{40} \times \frac{15}{65} = \dots$
22. $22 \times \frac{5}{55} = \dots$
23. $\frac{56}{99} \times \frac{77}{63} = \dots$
24. $\frac{24}{104} \times \frac{91}{24} = \dots$
25. $\frac{6}{55} \times \frac{11}{15} = \dots$
26. $\frac{3}{88} \times \frac{55}{21} = \dots$

الحلول

1. $\frac{56}{99} \times \frac{22}{63} = \frac{56 \times 22}{99 \times 63} = \frac{2 \times 2 \times 2 \times 2 \times 7 \times 11}{3 \times 3 \times 3 \times 3 \times 7 \times 11} = \frac{16}{81}$
2. $\frac{39}{104} \times \frac{26}{117} = \frac{39 \times 26}{104 \times 117} = \frac{2 \times 3 \times 13 \times 13}{2 \times 2 \times 2 \times 3 \times 3 \times 13 \times 13} = \frac{1}{12}$
3. $\frac{15}{78} \times \frac{13}{24} = \frac{15 \times 13}{78 \times 24} = \frac{3 \times 5 \times 13}{2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 13} = \frac{5}{48}$
4. $11 \times \frac{6}{55} = \frac{11 \times 6}{55} = \frac{2 \times 3 \times 11}{5 \times 11} = \frac{6}{5}$
5. $\frac{7}{110} \times \frac{44}{35} = \frac{7 \times 44}{110 \times 35} = \frac{2 \times 2 \times 7 \times 11}{2 \times 5 \times 5 \times 7 \times 11} = \frac{2}{25}$
6. $5 \times \frac{39}{40} = \frac{5 \times 39}{40} = \frac{3 \times 5 \times 13}{2 \times 2 \times 2 \times 5} = \frac{39}{8}$
7. $\frac{39}{55} \times \frac{22}{39} = \frac{39 \times 22}{55 \times 39} = \frac{2 \times 3 \times 11 \times 13}{3 \times 5 \times 11 \times 13} = \frac{2}{5}$
8. $\frac{3}{40} \times \frac{25}{27} = \frac{3 \times 25}{40 \times 27} = \frac{3 \times 5 \times 5}{2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5} = \frac{5}{72}$
9. $\frac{7}{78} \times \frac{39}{49} = \frac{7 \times 39}{78 \times 49} = \frac{3 \times 7 \times 13}{2 \times 3 \times 7 \times 7 \times 13} = \frac{1}{14}$
10. $\frac{66}{104} \times \frac{65}{88} = \frac{66 \times 65}{104 \times 88} = \frac{2 \times 3 \times 5 \times 11 \times 13}{2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 11 \times 13} = \frac{15}{32}$

11) $65 \times \frac{3}{104} = \frac{65 \times 3}{104} = \frac{3 \times 5 \times \cancel{13}}{2 \times 2 \times 2 \times \cancel{13}} = \frac{15}{8}$

12) $\frac{49}{40} \times \frac{5}{35} = \frac{49 \times 5}{40 \times 35} = \frac{\cancel{5} \times \cancel{7} \times 7}{2 \times 2 \times 2 \times \cancel{5} \times 5 \times \cancel{7}} = \frac{7}{40}$

13) $117 \times \frac{42}{91} = \frac{117 \times 42}{91} = \frac{2 \times 3 \times 3 \times 3 \times \cancel{7} \times \cancel{13}}{\cancel{7} \times \cancel{13}} = 54$

14) $\frac{66}{24} \times \frac{15}{66} = \frac{66 \times 15}{24 \times 66} = \frac{\cancel{2} \times \cancel{3} \times \cancel{3} \times 5 \times \cancel{11}}{\cancel{2} \times 2 \times 2 \times 2 \times \cancel{3} \times \cancel{3} \times \cancel{11}} = \frac{5}{8}$

15) $\frac{9}{24} \times \frac{6}{27} = \frac{9 \times 6}{24 \times 27} = \frac{\cancel{2} \times \cancel{3} \times \cancel{3} \times \cancel{3}}{\cancel{2} \times 2 \times 2 \times \cancel{3} \times \cancel{3} \times \cancel{3} \times 3} = \frac{1}{12}$

16) $\frac{26}{21} \times \frac{63}{130} = \frac{26 \times 63}{21 \times 130} = \frac{\cancel{2} \times \cancel{3} \times 3 \times \cancel{7} \times \cancel{13}}{\cancel{2} \times \cancel{3} \times 5 \times \cancel{7} \times \cancel{13}} = \frac{3}{5}$

17) $117 \times \frac{21}{91} = \frac{117 \times 21}{91} = \frac{3 \times 3 \times 3 \times \cancel{7} \times \cancel{13}}{\cancel{7} \times \cancel{13}} = 27$

18) $\frac{33}{21} \times \frac{15}{77} = \frac{33 \times 15}{21 \times 77} = \frac{\cancel{3} \times 3 \times 5 \times \cancel{11}}{\cancel{3} \times 7 \times 7 \times \cancel{11}} = \frac{15}{49}$

19) $\frac{33}{27} \times \frac{6}{33} = \frac{33 \times 6}{27 \times 33} = \frac{2 \times \cancel{3} \times \cancel{3} \times \cancel{11}}{\cancel{3} \times \cancel{3} \times 3 \times 3 \times \cancel{11}} = \frac{2}{9}$

20) $\frac{10}{42} \times \frac{7}{30} = \frac{10 \times 7}{42 \times 30} = \frac{\cancel{2} \times \cancel{5} \times \cancel{7}}{\cancel{2} \times 2 \times 3 \times 3 \times \cancel{5} \times \cancel{7}} = \frac{1}{18}$

21) $\frac{91}{40} \times \frac{15}{65} = \frac{91 \times 15}{40 \times 65} = \frac{3 \times \cancel{5} \times 7 \times \cancel{13}}{2 \times 2 \times 2 \times \cancel{5} \times 5 \times \cancel{13}} = \frac{21}{40}$

22) $22 \times \frac{5}{55} = \frac{22 \times 5}{55} = \frac{2 \times \cancel{5} \times \cancel{11}}{\cancel{5} \times \cancel{11}} = 2$

23) $\frac{56}{99} \times \frac{77}{63} = \frac{56 \times 77}{99 \times 63} = \frac{2 \times 2 \times 2 \times \cancel{7} \times 7 \times \cancel{11}}{3 \times 3 \times 3 \times 3 \times \cancel{7} \times \cancel{11}} = \frac{56}{81}$

24) $\frac{24}{104} \times \frac{91}{24} = \frac{24 \times 91}{104 \times 24} = \frac{\cancel{2} \times \cancel{2} \times \cancel{2} \times \cancel{3} \times 7 \times \cancel{13}}{\cancel{2} \times \cancel{2} \times \cancel{2} \times 2 \times 2 \times 2 \times \cancel{3} \times \cancel{13}} = \frac{7}{8}$

25) $\frac{6}{55} \times \frac{11}{15} = \frac{6 \times 11}{55 \times 15} = \frac{2 \times \cancel{3} \times \cancel{11}}{\cancel{3} \times 5 \times 5 \times \cancel{11}} = \frac{2}{25}$

26) $\frac{3}{88} \times \frac{55}{21} = \frac{3 \times 55}{88 \times 21} = \frac{\cancel{3} \times 5 \times \cancel{11}}{2 \times 2 \times 2 \times \cancel{3} \times 7 \times \cancel{11}} = \frac{5}{56}$