

ex 43

a) $6^2 \times 6^3 = 6^{2+3} = 6^5$

b) $7^2 \times 7^4 = 7^{2+4} = 7^6$

c) $4^3 \times 4^8 = 4^{3+8} = 4^{11}$

d) $5 \times 5^3 = 5^1 \times 5^3 = 5^{1+3} = 5^4$

e) $6^2 \times 6^4 = 6^{2+4} = 6^6$

f) $9^6 \times 9 = 9^6 \times 9^1 = 9^{6+1} = 9^7$

ex 44

a) $3^2 \times 3^4 = 3^6$

b) $2^2 \times 2^6 = 2^8$

c) $5^2 \times 5^4 = 5^6$

d) $6^2 \times 6^8 = 6^{10}$

ex 46

a) $\frac{5^7}{5^4} = 5^{7-4} = 5^3$

b) $\frac{6^8}{6^3} = 6^{8-3} = 6^5$

c) $\frac{4^6}{4^5} = 4^{6-5} = 4^1$

d) $\frac{3^4}{3} = \frac{3^4}{3^1} = 3^{4-1} = 3^3$

e) $\frac{5^2}{5^0} = 5^{2-0} = 5^2$

f) $\frac{9^7}{9^6} = 9^{7-6} = 9^1$

ex 47

a) $\frac{5^8}{5^2} = 5^6$

b) $\frac{6^{13}}{6^3} = 6^{10}$

c) $\frac{4^7}{4^4} = 4^3$