INDICES

DIVIDING EXPRESSIONS

NO CALCULATOR

Ref: G221.2F1

A1 Express as simply as possible: $\frac{a\times a\times a\times a\times a}{a\times a}$	**A2** Express as simply as possible: $\frac{a\times a\times a\times a\times a\times a}{a\times a\times a\times a}$	**A3** Express as simply as possible: $\frac{2\times 2\times a\times a\times a\times a}{2\times a\times a}$	**A4** Express as simply as possible: $\frac{2\times a\times a\times 3\times a\times a}{a\times 2\times a\times a}$
B1 Simplify: $\frac{a^7}{a^3}$	**B2** Simplify: $a^8 \div a^3$	**B3** Simplify: $\frac{a^{11}}{a^5}$	**B4** Simplify: $a^6 \div a^2$
C1 Simplify: $\frac{8a^7}{2a^3}$	**C2** Simplify: $\frac{10a^{10}}{5a^5}$	**C3** Simplify: $9a^5 \div 3a^4$	**C4** Simplify: $\frac{12a^8}{3a^2}$
D1 Find the value of n $\frac{a^{11}}{a^4} = a^n$	**D2** Find the value of n $\frac{a^n}{a^7} = a^{13}$	**D3** Find the value of n $\frac{a^8}{a^n} = a^5$	**D4** Find the value of n $a^n \div a^5 = a^9$
E1 Find the value of n $\frac{a^7\times a^n}{a^5} = a^4$	**E2** Find the value of n $\frac{a^n\times a^7}{a^3} = a^8$	**E3** Find the value of n $\frac{a^3\times a^7}{a^n} = a^2$	**E4** Find the value of n $\frac{a^n}{a^2\times a^4} = a^7$

INDICES

DIVIDING EXPRESSIONS

NO CALCULATOR

Ref: G221. 2F1

A1 Express as simply as possible: $\frac{a \times a \times a \times a \times a}{a \times a} = a^3$	**A2** Express as simply as possible: $\frac{a \times a \times a \times a \times a \times a}{a \times a \times a \times a} = a^2$	**A3** Express as simply as possible: $\frac{2 \times 2 \times a \times a \times a \times a}{2 \times a \times a} = 2a^2$	**A4** Express as simply as possible: $\frac{2 \times a \times a \times 3 \times a \times a}{a \times 2 \times a \times a} = 3a$
B1 Simplify: $\frac{a^7}{a^3} = a^4$	**B2** Simplify: $a^8 \div a^3$ $\frac{a^8}{a^3} = a^5$	**B3** Simplify: $\frac{a^{11}}{a^5} = a^6$	**B4** Simplify: $a^6 \div a^2$ $\frac{a^6}{a^2} = a^4$
C1 Simplify: $\frac{8a^7}{2a^3} = 4a^4$	**C2** Simplify: $\frac{10a^{10}}{5a^5} = 2a^5$	**C3** Simplify: $9a^5 \div 3a^4$ $\frac{9a^5}{3a^4} = 3a^1 = 3a$	**C4** Simplify: $\frac{12a^8}{3a^2} = 4a^6$
D1 Find the value of n $\frac{a^{11}}{a^4} = a^n$ $n = 11 - 4 = 7$	**D2** Find the value of n $\frac{a^n}{a^7} = a^{13}$ $n - 7 = 13$ $n = 20$	**D3** Find the value of n $\frac{a^8}{a^n} = a^5$ $8 - n = 5$ $n = 3$	**D4** Find the value of n $a^n \div a^5 = a^9$ $\frac{a^n}{a^5} = a^9$ $n - 5 = 9$ $n = 14$
E1 Find the value of n $a^2 \times a^n = a^4$ $2 + n = 4$ $n = 2$	**E2** Find the value of n $a^n \times a^4 = a^8$ $n + 4 = 8$ $n = 4$	**E3** Find the value of n $\frac{a^{10}}{a^n} = a^2$ $10 - n = 2$ $n = 8$	**E4** Find the value of n $\frac{a^n}{a^6} = a^7$ $n - 6 = 7$ $n = 13$