



SURDS MULTIPLYING AND DIVIDING

NO CALCULATOR

Ref: G184. **1F1**

Express	A2	Simplify	A3	Simplify	A4	Simplify
$\sqrt{2} \times \sqrt{3}$ as a single surd.		$\sqrt{2} \times \sqrt{7}$		$\sqrt{3} \times \sqrt{5}$		$\sqrt{2} \times \sqrt{8}$
Express $\frac{\sqrt{10}}{\sqrt{2}}$ as a single surd.	B2	Simplify $\frac{\sqrt{18}}{\sqrt{3}}$	B3	Simplify $\frac{\sqrt{50}}{\sqrt{2}}$	B4	Simplify $\frac{\sqrt{90}}{\sqrt{5}}$
Simplify $4 \times 5\sqrt{6}$	C2	Simplify $3\sqrt{2} \times \sqrt{5}$	C3	Simplify $2\sqrt{3} \times 4\sqrt{7}$	C4	Express $2\sqrt{2} \times 3\sqrt{5}$ in the form $a\sqrt{b}$
Express $\frac{\sqrt{28}}{2}$ in the form \sqrt{a}	D2	Express $\frac{\sqrt{45}}{3}$ in the form \sqrt{a}	D3	Simplify $\frac{\sqrt{48}}{2}$	D4	Simplify $\frac{\sqrt{180}}{3}$
Simplify $\frac{\sqrt{12}}{4} \times \frac{8}{\sqrt{3}}$	E2	$\frac{\text{Simplify}}{\frac{\sqrt{18}}{2} \times \frac{\sqrt{10}}{3}}$	E3	Simplify $\frac{12}{\sqrt{12}} \div \frac{4}{\sqrt{48}}$	E4	Simplify $\frac{5\sqrt{8}}{2\sqrt{5}} \div \frac{\sqrt{2}}{\sqrt{10}}$
	Express $\frac{\sqrt{10}}{\sqrt{2}}$ as a single surd. Simplify $4 \times 5\sqrt{6}$ Express $\frac{\sqrt{28}}{2}$ in the form \sqrt{a} Simplify	$\sqrt{2} \times \sqrt{3}$ as a single surd.B2Express $\frac{\sqrt{10}}{\sqrt{2}}$ as a single surd.C2Simplify $4 \times 5\sqrt{6}$ C2Express $\frac{\sqrt{28}}{2}$ in the form \sqrt{a} D2Simplify 2 E2	$\sqrt{2} \times \sqrt{3}$ as a single surd. $\sqrt{2} \times \sqrt{7}$ Express $\frac{\sqrt{10}}{\sqrt{2}}$ as a single surd. B2 $\frac{\sqrt{18}}{\sqrt{3}}$ Simplify $4 \times 5\sqrt{6}$ C2 $\sqrt{2} \times \sqrt{5}$ Express $\frac{\sqrt{28}}{2}$ in the form \sqrt{a} D2 $\frac{\sqrt{45}}{3}$ in the form \sqrt{a} Simplify $\frac{\sqrt{45}}{3}$ in the form \sqrt{a}	$\sqrt{2} \times \sqrt{3}$ as a single surd. $\sqrt{2} \times \sqrt{7}$ B3Express $\frac{\sqrt{10}}{\sqrt{2}}$ as a single surd.B2Simplify $\frac{\sqrt{18}}{\sqrt{3}}$ B3Simplify $4 \times 5\sqrt{6}$ C2Simplify $3\sqrt{2} \times \sqrt{5}$ C3Express $\frac{\sqrt{28}}{2}$ in the form \sqrt{a} D2Express $\frac{\sqrt{45}}{3}$ in the form \sqrt{a} D3Simplify 	$\sqrt{2} \times \sqrt{3}$ as a single surd. $\sqrt{2} \times \sqrt{7}$ $\sqrt{3} \times \sqrt{5}$ Express $\frac{\sqrt{10}}{\sqrt{2}}$ as a single surd. B2 Simplify $\frac{\sqrt{18}}{\sqrt{3}}$ B3 Simplify $\frac{\sqrt{50}}{\sqrt{2}}$ Simplify $4 \times 5\sqrt{6}$ C2 Simplify $3\sqrt{2} \times \sqrt{5}$ C3 Simplify $2\sqrt{3} \times 4\sqrt{7}$ Express $\frac{\sqrt{28}}{2}$ in the form \sqrt{a} D2 Express $\frac{\sqrt{45}}{3}$ in the form \sqrt{a} D3 Simplify $\frac{\sqrt{48}}{2}$ Simplify E2 Simplify E3 Simplify	$\sqrt{2} \times \sqrt{3}$ as a single surd. $\sqrt{2} \times \sqrt{7}$ $\sqrt{3} \times \sqrt{5}$ B4Express $\frac{\sqrt{10}}{\sqrt{2}}$ as a single surd.B2Simplify $\frac{\sqrt{18}}{\sqrt{3}}$ B3Simplify $\frac{\sqrt{50}}{\sqrt{2}}$ B4Simplify $4 \times 5\sqrt{6}$ C2Simplify $3\sqrt{2} \times \sqrt{5}$ C3Simplify $2\sqrt{3} \times 4\sqrt{7}$ C4Express $\frac{\sqrt{28}}{2}$ in the form \sqrt{a} D2Express $\frac{\sqrt{45}}{3}$ in the form \sqrt{a} D3Simplify $\frac{\sqrt{48}}{2}$ D4Simplify E2E2SimplifyE3SimplifyE4





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A1	Express	A2	Simplify	A3	1 2	A4	Simplify	
	$\sqrt{2} \times \sqrt{3} = \sqrt{6}$		$\sqrt{2} \times \sqrt{7} = \sqrt{14}$		$\sqrt{3} \times \sqrt{5} = \sqrt{15}$		$\sqrt{2} \times \sqrt{8} = \sqrt{16} = 4$	
B 1	Express	B2	Simplify	B3	Simplify	B4	Simplify	
	$\frac{\sqrt{10}}{\sqrt{2}} = \sqrt{5}$		$\frac{\sqrt{18}}{\sqrt{3}} = \sqrt{6}$		$\frac{\sqrt{50}}{\sqrt{2}} = \sqrt{25} = 5$		$\frac{\sqrt{90}}{\sqrt{5}} = \sqrt{18} = \frac{3\sqrt{2}}{\sqrt{2}}$	
C1	Simplify	C2	Simplify	C3	Simplify	C4	Express	
	$4 \times 5\sqrt{6} = \frac{20\sqrt{6}}{20}$		$3\sqrt{2} \times \sqrt{5} = \frac{3\sqrt{10}}{10}$		$2\sqrt{3} \times 4\sqrt{7} = 8\sqrt{21}$		$2\sqrt{2} \times 3\sqrt{5} = 6\sqrt{10}$	
D1	Express	D2	Express	D3	Simplify	D4	Simplify	
	$\frac{\sqrt{28}}{2} = \frac{2\sqrt{7}}{2} = \sqrt{7}$		$\frac{\sqrt{45}}{3} = \frac{3\sqrt{5}}{3} = \sqrt{5}$		$\frac{\sqrt{48}}{2} = \frac{4\sqrt{3}}{2} = 2\sqrt{3}$		$\frac{\sqrt{180}}{3} = \frac{6\sqrt{5}}{3} = 2\sqrt{5}$	
E1	Simplify	E2	Simplify	E3	Simplify	E4	Simplify	
	4 13 10 4		$\frac{\sqrt{18}}{2} \times \frac{\sqrt{10}}{3} = \sqrt{5}$		$\frac{12}{\sqrt{12}} \div \frac{4}{\sqrt{48}} = \frac{12}{\sqrt{12}} \times \frac{\sqrt{48}}{4}$			
	$=\sqrt{4}\times2=4$				= 6		$= 5\sqrt{2}$	

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