

a Simplify $\sqrt{3} \times \sqrt{3}$ 3 a surd times itself	b Simplify $\sqrt{2} \times \sqrt{5}$ $\sqrt{10}$ multiplying surds	c Simplify $\sqrt{12}$ $2\sqrt{3}$ simplifying a surd	d Simplify $\sqrt{72}$ $6\sqrt{2}$ the largest square factor
e Simplify $3\sqrt{5} + 2\sqrt{5}$ $5\sqrt{5}$ adding like surds	f Simplify $\sqrt{8} + \sqrt{18}$ $5\sqrt{2}$ simplifying before adding	g Simplify $2\sqrt{3} \times 4\sqrt{3}$ 24 multiplying with coefficients	h Expand and simplify $\sqrt{2}(3 + \sqrt{2})$ $2 + 3\sqrt{2}$ expanding one bracket
i Expand and simplify $(1 + \sqrt{3})^2$ $4 + 2\sqrt{3}$ squaring a bracket	j Expand and simplify $(3 + \sqrt{2})(3 - \sqrt{2})$ 7 the surds cancel out	k Write $\frac{6}{\sqrt{3}}$ with a rational denominator $2\sqrt{3}$ rationalising the denominator	l Write $\frac{4}{3 - \sqrt{5}}$ with a rational denominator $3 + \sqrt{5}$ rationalising a two term denominator

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