

Answers - Surds

1 a $3\sqrt{5}$

c $4\sqrt{3}$

e $10\sqrt{3}$

g $6\sqrt{2}$

b $5\sqrt{5}$

d $5\sqrt{7}$

f $2\sqrt{7}$

h $9\sqrt{2}$

2 a $15\sqrt{2}$

c $3\sqrt{2}$

e $6\sqrt{7}$

b $\sqrt{5}$

d $\sqrt{3}$

f $5\sqrt{3}$

3 a -1

c $10\sqrt{5} - 7$

b $9 - \sqrt{3}$

d $26 - 4\sqrt{2}$

4 a $\frac{\sqrt{5}}{5}$

c $\frac{2\sqrt{7}}{7}$

e $\sqrt{2}$

g $\frac{\sqrt{3}}{3}$

b $\frac{\sqrt{11}}{11}$

d $\frac{\sqrt{2}}{2}$

f $\sqrt{5}$

h $\frac{1}{3}$

5 a $\frac{3 + \sqrt{5}}{4}$

b $\frac{2(4 - \sqrt{3})}{13}$

c $\frac{6(5 + \sqrt{2})}{23}$

6 $x - y$

7 a $3 + 2\sqrt{2}$

b $\frac{\sqrt{x} + \sqrt{y}}{x - y}$