

Surds 1

1. Simplify the following:

a. $\sqrt{3} + 2\sqrt{3} - \sqrt{5} + 2\sqrt{7}$

b. $\sqrt{20} + \sqrt{5}$

c. $\sqrt{20} - \sqrt{50} + \sqrt{5}$

d. $\frac{\sqrt{3}}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{5}}$

e. $\frac{\sqrt{7}}{\sqrt{5}} \div \frac{\sqrt{3}}{\sqrt{5}}$

f. $\frac{\sqrt{3}}{\sqrt{5}} \times \frac{\sqrt{7}}{\sqrt{5}} \div \sqrt{3}$

g. $\sqrt{12} + \sqrt{75} - \sqrt{9}$

h. $\frac{\sqrt{49} - \sqrt{36}}{\sqrt{8}}$

i. $\frac{\sqrt{24} + \sqrt{54}}{\sqrt{25}}$

j. $2(1 - \sqrt{2}) + 3\sqrt{8}$

k. $3\sqrt{2} \times 2\sqrt{10} \div \sqrt{5}$

l. $2\sqrt{9} + 7 - 5\sqrt{2 + 3} - \sqrt{20}$