



**Skill:** Simplifying Surds and Rationalising the Denominator

### Questions

*Attempt these questions independently showing full and clear solutions. Check each answer as you go.*

1. Simplify the following:

a)  $\sqrt{12}$

b)  $\sqrt{48}$

c)  $\sqrt{50}$

d)  $\sqrt{200}$

e)  $\sqrt{72}$

f)  $\sqrt{125}$

g)  $\sqrt{288}$

h)  $\sqrt{450}$

i)  $3\sqrt{3} \times 2\sqrt{3}$

j)  $2\sqrt{7} \times 2\sqrt{7}$

k)  $\sqrt{5}\sqrt{15}$

l)  $\sqrt{2}\sqrt{8}$

2. Simplify the following:

a)  $\sqrt{18} + \sqrt{50}$

b)  $\sqrt{48} - \sqrt{27}$

c)  $\sqrt{32} + \sqrt{72}$

d)  $2\sqrt{90} - \sqrt{320}$

e)  $\sqrt{20} - \sqrt{45} + \sqrt{180}$

f)  $\sqrt{24} + \sqrt{150} - 2\sqrt{96}$