

RADICALS in SIMPLEST FORM

Simplify: **a** $\sqrt{3}\sqrt{5}$ **b** $\frac{\sqrt{18}}{\sqrt{3}}$ **c** $(2\sqrt{3})^2$

$$\begin{aligned} \text{a} \quad & \sqrt{3}\sqrt{5} \\ &= \sqrt{3 \times 5} \\ &= \sqrt{15} \end{aligned}$$

$$\begin{aligned} \text{b} \quad & \frac{\sqrt{18}}{\sqrt{3}} \\ &= \sqrt{\frac{18}{3}} \\ &= \sqrt{6} \end{aligned}$$

$$\begin{aligned} \text{c} \quad & (2\sqrt{3})^2 \\ &= 2\sqrt{3} \times 2\sqrt{3} \\ &= 4 \times 3 \\ &= 12 \end{aligned}$$

Write in simplest form: **a** $\sqrt{20}$ **b** $\sqrt{98}$

$$\begin{aligned} \text{a} \quad & \sqrt{20} \\ &= \sqrt{4 \times 5} \\ &= \sqrt{4}\sqrt{5} \\ &= 2\sqrt{5} \end{aligned}$$

$$\begin{aligned} \text{b} \quad & \sqrt{98} \\ &= \sqrt{49 \times 2} \\ &= \sqrt{49}\sqrt{2} \\ &= 7\sqrt{2} \end{aligned}$$

1 Simplify:

a $(\sqrt{3})^2$

b $(\sqrt{7})^2$

c $(\sqrt{13})^2$

d $(\sqrt{24})^2$

e $\frac{\sqrt{14}}{\sqrt{7}}$

f $\frac{\sqrt{24}}{\sqrt{6}}$

g $\frac{\sqrt{18}}{\sqrt{2}}$

h $\frac{\sqrt{39}}{\sqrt{13}}$

i $(2\sqrt{2})^2$

j $(3\sqrt{5})^2$

k $(7\sqrt{2})^2$

l $(2\sqrt{7})^2$

RADICALS in SIMPLEST FORM

2 Write in simplest form:

a $\sqrt{8}$

b $\sqrt{24}$

c $\sqrt{28}$

d $\sqrt{52}$

e $\sqrt{18}$

f $\sqrt{32}$

g $\sqrt{27}$

h $\sqrt{48}$

i $\sqrt{72}$

j $\sqrt{50}$

k $\sqrt{125}$

l $\sqrt{63}$

m $\sqrt{80}$

n $\sqrt{200}$

o $\sqrt{75}$

p $\sqrt{112}$