# Squaring and square rooting, cubing and cube rooting

Evaluate the following WITHOUT the use of a calculator

(a) $4^2$ = ..... (b) $8^2$ = ..... (c) $20^2$ = .....

(d) $90^2$ = ..... (e) $0.6^2$ = ..... (f) $1.2^2$ = .....

(g) $(-3)^2$ = ..... (g) $(-9)^2$ = ..... (g) $(-0.4)^2$ = .....

**Example :** $\sqrt{25}=5$ **because** $5\times5=25$

Find

(a) $\sqrt{49}$ = ..... (b) $\sqrt{121}$ = ..... (c) $\sqrt{400}$ = .....

Estimate as **a whole number** the value of;

(a) $\sqrt{65}$ = ..... (b) $\sqrt{80}$ = ..... (c) $\sqrt{150}$ = .....

**Example :** $2^3=2\times2\times2=8$

Find

(a) $1^3$ = ..... (b) $3^3$ = ..... (c) $5^3$ = .....

**Example :** $\sqrt[3]{27}=3$ **because** $3\times3\times3=27$

Find

(a) $\sqrt[3]{8}$ = ..... (b) $\sqrt[3]{64}$ = ..... (c) $\sqrt[3]{-64}$ = .....

Work these out without a calculator

(a) $\sqrt[3]{8}+(-4)^2$ (b) $\sqrt{3^2+4^2}$ (c) $2^3\times\sqrt{49}+(-3)^2$

..... ..... .....