

Evaluate (work out the value of) these expressions. Show at least one intermediate step for each part (perhaps writing the problem out with repeated multiplication or division).

**1**  $(-8)^2$

Directly,

$$(-8)^2 = (-8) \cdot (-8) = 64.$$

Alternatively, since 2 is even,

$$(-8)^2 = 8^2 = 64.$$

**2**  $\left(\frac{3}{4}\right)^3$

Directly,

$$\left(\frac{3}{4}\right)^3 = \frac{3}{4} \cdot \frac{3}{4} \cdot \frac{3}{4} = \frac{27}{64}.$$

Alternatively,

$$\left(\frac{3}{4}\right)^3 = \frac{3^3}{4^3} = \frac{27}{64}.$$

**3**  $10^{-3}$

Directly,

$$10^{-3} = 1 \div 10 \div 10 \div 10 = \frac{1}{1000}.$$

Alternatively,

$$10^{-3} = \left(\frac{1}{10}\right)^3 = \frac{1}{1000},$$

or

$$10^{-3} = \frac{1}{10^3} = \frac{1}{1000}.$$