

- 1 Write the numbers in order of size with the **smallest** first.

$$\begin{array}{cccc} \sqrt{10} & 3.14 & \frac{22}{7} & \pi \\ = 3.162277\dots & & = 3.142857\dots & = 3.141592\dots \end{array}$$

Answer  $3.14 < \pi < \frac{22}{7} < \sqrt{10}$  [2]

- 2 Michel changed \$600 into pounds (£) when the exchange rate was £1 = \$2.40.  
He later changed all the pounds back into dollars when the exchange rate was £1 = \$2.60.

How many dollars did he receive?

$$£1 = \$2.40$$

$$x = \$600$$

$$\begin{aligned} x &= \frac{£1}{\$2.40} \times \$600 \\ &= £250 \end{aligned}$$

$$£1 = \$2.60$$

$$£250 = y$$

$$\begin{aligned} y &= \frac{\$2.60}{£1} \times £250 \\ &= \$650 \end{aligned}$$

Answer \$  $650$  [2]

- 3  $p$  is the largest prime number between 50 and 100.  
 $q$  is the smallest prime number between 50 and 100.

Calculate the value of  $p - q$ .

$$p = 97$$

$$q = 53$$

$$\begin{aligned} p - q &= 97 - 53 \\ &= 44 \end{aligned}$$

Answer  $44$  [2]

- 4 A person in a car, travelling at 108 kilometres per hour, takes 1 second to go past a building on the side of the road.

Calculate the length of the building in metres.

$$\begin{aligned} 108 \text{ km/h} &= \frac{108 \times 1000}{1 \times 3600} \text{ m/s} \\ &= 30 \text{ m/s} \end{aligned}$$

$$\begin{aligned} \text{Distance} &= \text{Speed} \times \text{Time} \\ &= 30 \text{ m/s} \times 1 \text{ s} \\ &= 30 \text{ m} \end{aligned}$$

Answer  $30$  m [2]