QUESTION **2** Work out the following.

a $8.3 \times 10 =$ _____ **b** $5.32 \times 100 =$ _____ **c** $0.38 \times 100 =$ _____

d $125.34 \times 100 =$ _____ **e** $0.06 \times 10 =$ _____ **f** $8.6 \times 100 =$ _____

g $8.15 \times 1000 =$ _____ **h** $95.38 \times 100 =$ _____ **i** $9.8 \times 10 =$ _____

j $9.35 \times 100 =$ _____ **k** $9.36 \times 100 =$ _____ **l** $63.64 \times 10 =$ _____

QUESTION **3** Calculate the following.

a $0.12 \times 100 =$ _____ **b** $8.13 \times 100 =$ _____ **c** $19.65 \times 100 =$ _____

d $26.36 \times 100 =$ _____ **e** $5.6 \times 1000 =$ _____ **f** $8.3 \times 1000 =$ _____

g $6.32 \times 1000 =$ _____ **h** $8.123 \times 1000 =$ _____ **i** $9.13 \times 1000 =$ _____

j $2.5 \times 1000 =$ _____ **k** $0.1 \times 1000 =$ _____ **l** $0.02 \times 1000 =$ _____

QUESTION **2** Calculate the following divisions.

a $64 \div 10 =$ _____ **b** $85 \div 10 =$ _____ **c** $99 \div 10 =$ _____

d $563 \div 10 =$ _____ **e** $83.5 \div 10 =$ _____ **f** $93.4 \div 10 =$ _____

g $112.6 \div 10 =$ _____ **h** $625.8 \div 10 =$ _____ **i** $49.6 \div 100 =$ _____

j $63.7 \div 100 =$ _____ **k** $94.8 \div 100 =$ _____ **l** $124.2 \div 100 =$ _____

QUESTION **3** Evaluate the following divisions.

a $32.1 \div 10 =$ _____ **b** $48.6 \div 10 =$ _____ **c** $59.7 \div 10 =$ _____

d $63.8 \div 10 =$ _____ **e** $9.2 \div 100 =$ _____ **f** $19.6 \div 100 =$ _____

g $29.36 \div 100 =$ _____ **h** $129.5 \div 100 =$ _____ **i** $72.5 \div 1000 =$ _____

j $138.2 \div 1000 =$ _____ **k** $243.9 \div 1000 =$ _____ **l** $563.7 \div 1000 =$ _____

8 Calculate the following, using the order of operations.

a $1.56 \times 100 + 24 \div 10$ **b** $16 \div 100 + 32 \div 10$

c $3 + 10(24 \div 100 + 8)$ **d** $10(6.734 \times 100 + 32)$

e $35.4 + 4.2 \times 10 - 63.4 \div 10$ **f** $4.7 - 24 \div 10 + 0.52 \times 10$

g $14 \div 100 + 1897 \div 1000$ **h** $78.1 - 10(64 \div 100 + 5)$

9 A service station charges $1.47 per litre of petrol. How much will it cost Tanisha to fill her car with 100 litres of petrol?

11 Wendy is on a mobile phone plan that charges her 3 cents per text message. On average, Wendy sends 10 text messages per day. What will it cost Wendy for 100 days of sending text messages at this rate? Give your answer in cents and then convert your answer to dollars.

13 The weight of a matchstick is 0.00015 kg. Find the weight of 10 000 boxes of matches, with each box containing 100 matches. The weight of one empty match box is 0.0075 kg.

16 Extremely large numbers and extremely small numbers are often written in a more practical way, known as standard form or scientific notation.

For example, the distance from the Earth to the Sun is 150 000 000 kilometres! The distance of 150 million kilometres can be written in standard form as 1.5×10^8 kilometres.

1.5×10^8 indicates that the decimal place needs to be moved 8 places to the right.

$$1.5 \times 10^8 = 1.5 \times 100\,000\,000$$
$$= 150\,000\,000.$$

a Represent these numbers in standard form.

i 500 000 000 000 000 **ii** 42 000 000 **iii** 12 300 000 000 000 000

b Use a calculator to evaluate the following.

i $40\,000\,000\,000 \times 500\,000\,000$ **ii** $9\,000\,000 \times 120\,000\,000\,000\,000$