

TARGET To multiply numbers with up to two decimal places by whole numbers.

When multiplying a decimal by a whole number you need to be careful that the answer has the correct number of decimal places. Generally there must be the same number of decimal places in the decimal being multiplied as in the answer.

Examples

$$0.8 \times 3 = 2.4$$

$$0.83 \times 2 = 1.66$$

$$0.083 \times 2 = 0.166$$

The exception, of course, is when the smallest value digit of the answer is a 0.

Examples

$$0.06 \times 5 = 0.3 \quad (0.30)$$

$$1.25 \times 4 = 5 \quad (5.00)$$

The same rules apply when using a written method. In practice this is straightforward providing you set out your calculation neatly and align decimal points.

Examples

$$\begin{array}{r} 15.37 \\ \times 6 \\ \hline 92.22 \\ 32.4 \\ \hline \end{array}$$

$$\begin{array}{r} 276.9 \\ \times 3 \\ \hline 830.7 \\ 222 \\ \hline \end{array}$$

However, it is always advisable to check that your answer is a sensible one.

Example 1 15.37 rounds to 15
 $15 \times 6 = 90$
 92.22 is a sensible answer.

Example 2 276.9 rounds to 280
 $280 \times 3 = 840$
 830.7 is a sensible answer.

A

- 1 One bathroom tile is 0.3 m long. How long is a row of:
 a) 2 tiles b) 5 tiles c) 8 tiles?
- 2 One can of beans weighs 0.4 kg. What is the weight of:
 a) 2 cans b) 3 cans c) 7 cans?

Work out

- 3 $0.6 \text{ km} \times 2$
- 4 $0.5 \text{ litres} \times 8$
- 5 $0.9 \text{ kg} \times 6$
- 6 $0.2 \text{ m} \times 9$
- 7 $0.8 \text{ litres} \times 7$
- 8 $0.7 \text{ cm} \times 3$
- 9 $0.5 \text{ m} \times 5$
- 10 $0.6 \text{ kg} \times 8$

- 11 One can of paint holds 3.5 litres. Copy and complete to find the capacity of:

a) 4 cans	b) 7 cans.
$\begin{array}{r} 3.5 \text{ litres} \\ \times 4 \\ \hline \text{litres} \end{array}$	$\begin{array}{r} 3.5 \text{ litres} \\ \times 7 \\ \hline \text{litres} \end{array}$

- 12 A bike race circuit is 2.8 km long. How long is a race of:
 a) 3 circuits b) 5 circuits?

$\begin{array}{r} 2.8 \\ \times 3 \\ \hline \text{km} \end{array}$	$\begin{array}{r} 2.8 \\ \times 5 \\ \hline \text{km} \end{array}$
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Work out

- 13 $4.9 \text{ m} \times 5$
- 14 $6.7 \text{ km} \times 2$
- 15 $8.6 \text{ litres} \times 3$
- 16 $5.8 \text{ cm} \times 9$
- 17 $9.4 \text{ m} \times 6$
- 18 $7.2 \text{ kg} \times 8$
- 19 8.3×4
- 20 6.5×7
- 21 2.7×9
- 22 5.6×6
- 23 3.9×8
- 24 4.8×7

B

- 1 A tube of toothpaste holds 0.08 litres. What is the capacity of:
 a) 3 tubes b) 5 tubes c) 9 tubes?
- 2 One pot noodle weighs 0.09 kg. What is the weight of:
 a) 2 pots b) 9 pots c) 12 pots?

Work out

- 3 $£0.04 \times 8$
- 4 $0.07 \text{ km} \times 6$
- 5 $0.06 \text{ m} \times 5$
- 6 $0.05 \text{ litres} \times 9$
- 7 $0.09 \text{ kg} \times 3$
- 8 $£0.03 \times 6$
- 9 $0.08 \text{ km} \times 4$
- 10 $0.07 \text{ m} \times 8$

- 11 One bar of chocolate cost £1.39. Copy and complete to find the cost of:

a) 3 bars	b) 8 bars.
$\begin{array}{r} £1.39 \\ \times 3 \\ \hline £ \end{array}$	$\begin{array}{r} £1.39 \\ \times 8 \\ \hline £ \end{array}$

- 12 One inch is 2.54 cm. Copy and complete to find how many centimetres is:

a) 6 inches	b) 9 inches.
$\begin{array}{r} 2.54 \\ \times 6 \\ \hline \text{cm} \end{array}$	$\begin{array}{r} 2.54 \\ \times 9 \\ \hline \text{cm} \end{array}$

Work out

- 13 $28.5 \text{ cm} \times 5$
- 14 $£1.76 \times 6$
- 15 $43.9 \text{ kg} \times 8$
- 16 $5.64 \text{ m} \times 3$
- 17 $51.8 \text{ litres} \times 7$
- 18 $£3.92 \times 9$
- 19 8.19×4
- 20 6.27×8
- 21 61.3×7
- 22 25.8×9
- 23 7.45×6
- 24 9.07×3

- 25 Cans of paint hold 4.78 litres. What is the total capacity of 6 cans?

C

- 1 A dripping tap loses 0.006 litres every second. How much water is lost in:
 a) 5 seconds
 b) 12 seconds
 c) 40 seconds?

- 2 One coin weighs 0.012 kg. What is the weight of:

- a) 7 coins
- b) 11 coins
- c) 20 coins?

Work out

- 3 $0.009 \text{ km} \times 7$
- 4 $0.005 \text{ litres} \times 11$
- 5 $0.008 \text{ m} \times 6$
- 6 $0.007 \text{ kg} \times 5$
- 7 0.006×9
- 8 0.004×12
- 9 0.009×8
- 10 0.007×4

- 11 Train tickets cost £52.75 each. Copy and complete to find the cost of:

a) 4 tickets	b) 9 tickets.
$\begin{array}{r} £52.75 \\ \times 4 \\ \hline £ \end{array}$	$\begin{array}{r} £52.75 \\ \times 9 \\ \hline £ \end{array}$

- 12 One patio tile weighs 2.685 kg. Copy and complete to find the weight of:

a) 5 tiles	b) 12 tiles.
$\begin{array}{r} 2.685 \text{ kg} \\ \times 5 \\ \hline \text{kg} \end{array}$	$\begin{array}{r} 2.685 \text{ kg} \\ \times 12 \\ \hline \text{kg} \end{array}$

Work out

- 13 $£71.82 \times 6$
- 14 $2.594 \text{ m} \times 9$
- 15 $64.57 \text{ km} \times 5$
- 16 $4.278 \text{ kg} \times 8$
- 17 $£16.39 \times 7$
- 18 $3.862 \text{ litres} \times 4$
- 19 5.963×8
- 20 9.248×3
- 21 14.87×9
- 22 85.74×7
- 23 7.195×4
- 24 9.236×6