



1 Work out 4.36×100

(1 mark)

Multiplying by 100 moves every digit two place value columns to the left

$$4.36 \times 100 = 436$$

436

2 Work out 2.5×0.6

(2 marks)

Ignore the decimal points

$$25 \times 6 = 150$$

2 decimal places in the question

$$2.5 \times 0.6 = 1.5$$

3 Work out 7.2×0.4

(2 marks)

Ignore the decimal points

$$72 \times 4 = 288$$

2 decimal places in the question

$$7.2 \times 0.4 = 2.88$$

4 Work out 4.7×0.3

(2 marks)

$$\text{Work out } 47 \times 3 = 141$$

4.7 has 1 decimal place and 0.3 has 1 decimal place, so the answer has 2 decimal places

$$4.7 \times 0.3 = 1.41$$

Compared with 47×3 , both factors were divided by 10. The product is therefore divided by 100: $141 \div 100 = 1.41$

1.41

5 Work out 3.7×0.28

(3 marks)

Ignore the decimal points

$$37 \times 28$$

$$37 \times 20 = 740$$

$$37 \times 8 = 296$$

$$740 + 296 = 1036$$

$1 + 2 = 3$ decimal places in the question

$$3.7 \times 0.28 = 1.036$$

6 Work out 2.36×1.4

(3 marks)

Work out 236×14

$$236 \times 10 = 2360 \text{ and } 236 \times 4 = 944$$

$$2360 + 944 = 3304$$

2.36 has 2 decimal places and 1.4 has 1 decimal place, so the answer has 3 decimal places: 3.304

$$3.304$$

7

$$23 \times 15 = 345$$

Use this to work out

a. 2.3×1.5

b. 0.23×15

c. $34.5 \div 2.3$

(3 marks)

a)

$$23 \rightarrow 2.3 \text{ is } \div 10, 15 \rightarrow 1.5 \text{ is } \div 10$$

$$345 \div 100 = 3.45$$

$$\boxed{3.45}$$

b)

$$23 \rightarrow 0.23 \text{ is } \div 100, 15 \text{ stays the same}$$

$$345 \div 100 = 3.45$$

$$\boxed{3.45}$$

c)

$$34.5 \text{ is } 345 \div 10, 2.3 \text{ is } 23 \div 10$$

Both $\div 10$, so the answer is unchanged

$$345 \div 23 = 15$$

$$\boxed{15}$$

8

Fabric costs £4.85 per metre.

Mia buys 3.6 metres of the fabric.

Work out the total cost.

(3 marks)

Ignore the decimal points

$$485 \times 36$$

$$485 \times 30 = 14550$$

$$485 \times 6 = 2910$$

$$14550 + 2910 = 17460$$

$$2 + 1 = 3 \text{ decimal places}$$

$$\boxed{\text{Cost} = \text{£}17.46}$$

9 Work out $40.32 \div 0.7$

(3 marks)

Multiplying both dividend and divisor by the same non-zero number keeps their ratio, and therefore the quotient, unchanged. It makes the divisor a whole number

Multiply both numbers by 10

$$40.32 \div 0.7 = 403.2 \div 7$$

$$7 \times 57 = 399, \text{ remainder } 4.2$$

$$4.2 \div 7 = 0.6, \text{ so the answer is } 57.6$$

57.6

10 A rope is 14.4 m long.

It is cut into pieces that are each 0.8 m long.

How many pieces are there?

(3 marks)

Multiply both by 10 to make 0.8 a whole number

$$14.4 \div 0.8 = 144 \div 8$$

$$144 \div 8 = 18$$

18 pieces

11 Work out $5.394 \div 0.06$

(3 marks)

Multiply both numbers by 100

$$5.394 \div 0.06 = 539.4 \div 6$$

$$6 \times 89 = 534, \text{ remainder } 5.4$$

$$5.4 \div 6 = 0.9, \text{ so the answer is } 89.9$$

89.9

12

A patio measures 4.8 m by 3.5 m.

Paving costs £2.30 per square metre.

Work out the total cost of paving the patio.

(4 marks)

Area first

$$48 \times 35 = 1680$$

$$4.8 \times 3.5 = 16.80 \text{ m}^2$$

Now the cost

$$168 \times 23 = 3864$$

$$16.8 \times 2.3 = 38.64$$

$$\text{Cost} = \text{£}38.64$$

13

a. Work out 3.24×2.6

b. Work out $58.14 \div 0.9$

(6 marks)

a) 324×26

$$324 \times 20 = 6480 \text{ and } 324 \times 6 = 1944, \text{ total } 8424$$

a) Three decimal places in the question, so $3.24 \times 2.6 = 8.424$

b) Multiply both numbers by 10

$$58.14 \div 0.9 = 581.4 \div 9$$

b) $9 \times 64 = 576$, remainder 5.4, and $5.4 \div 9 = 0.6$, so the answer is 64.6

14

a. Work out 4.62×3.5

b. Work out $33.48 \div 1.2$

(6 marks)

a) 462×35

$$462 \times 30 = 13860 \text{ and } 462 \times 5 = 2310, \text{ total } 16170$$

a) Three decimal places in the question gives 16.170, which is 16.17

b) Multiply both numbers by 10

$$33.48 \div 1.2 = 334.8 \div 12$$

b) $12 \times 27 = 324$, remainder 10.8, and $10.8 \div 12 = 0.9$, so the answer is 27.9