

## Lesson Objectives:

Developing students will be able to multiply a whole number by a decimal.

Secure students will be able to multiply a decimal by a decimal.

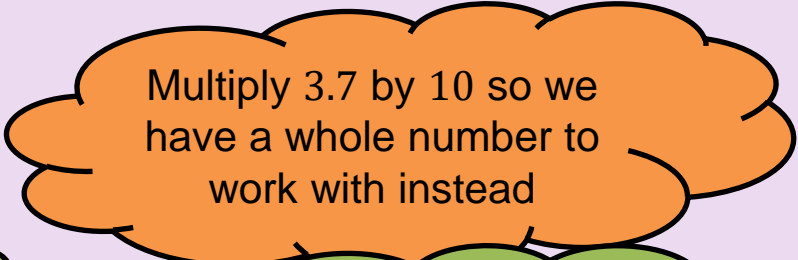
Excelling students will be able to solve problems involving decimals.

## Example

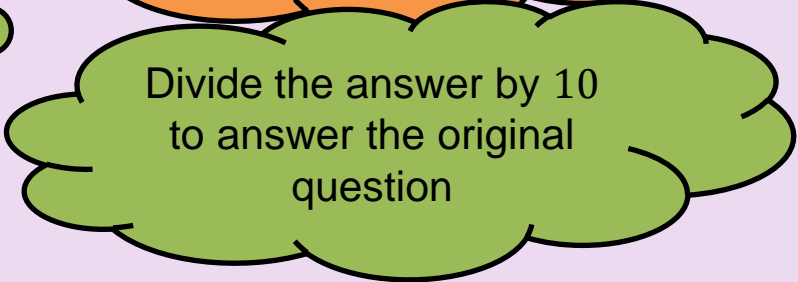
Work out  $6 \times 3.7$

$$6 \times 37 = 222$$

$$6 \times 3.7 = 22.2$$



Multiply 3.7 by 10 so we have a whole number to work with instead



Divide the answer by 10 to answer the original question

## Keywords

Decimal, multiply, whole number, decimal point, decimal place

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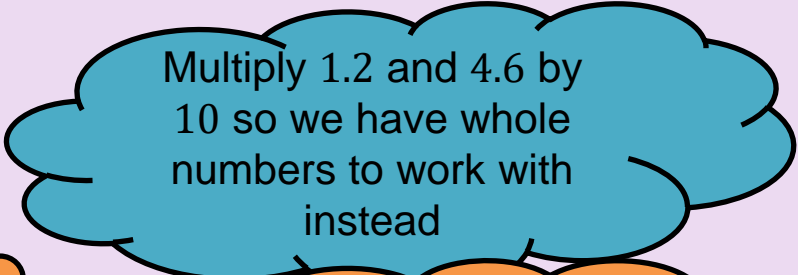
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Example

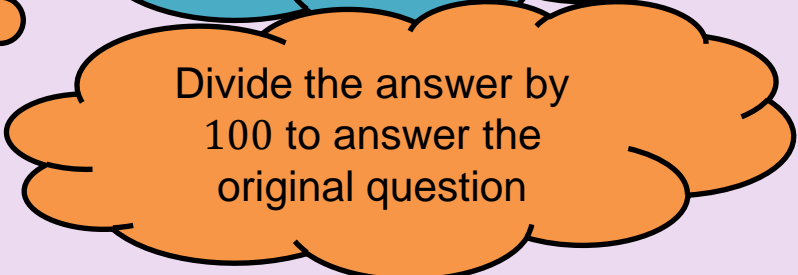
Work out  $1.2 \times 4.6$

$$12 \times 46 = 552$$

$$1.2 \times 4.6 = 5.22$$



Multiply 1.2 and 4.6 by 10 so we have whole numbers to work with instead



Divide the answer by 100 to answer the original question

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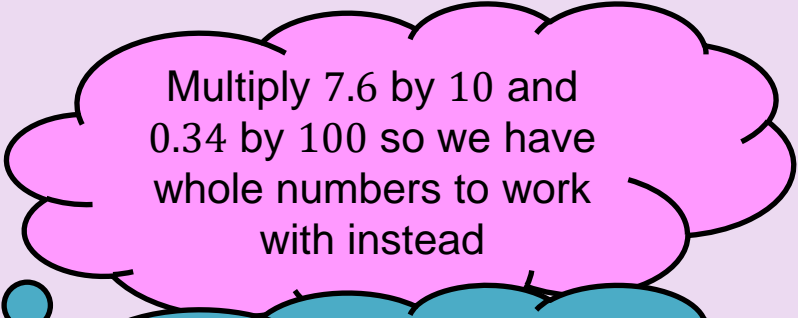
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Example

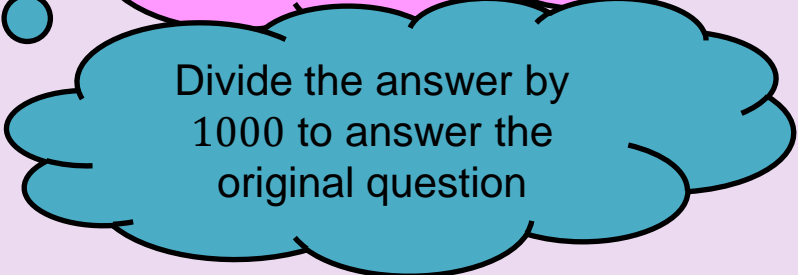
Work out  $7.6 \times 0.34$

$$76 \times 34 = 2584$$

$$7.6 \times 0.34 = 2.584$$

A pink thought bubble with a black outline, containing text. It is connected to the equations above by several small circles of varying sizes.

Multiply 7.6 by 10 and 0.34 by 100 so we have whole numbers to work with instead





A teal thought bubble with a black outline, containing text. It is connected to the equations above by several small circles of varying sizes.

Divide the answer by 1000 to answer the original question





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$$4 \times 0.2$$

 A	8	 B	0.08
 C	0.8	 D	80





$$4 \times 0.2$$

 A	8	 B	0.08
 C	0.8	 D	80





$$3 \times 0.6$$

 A	18	 B	1.8
 C	0.18	 D	0.018

$$3 \times 0.6$$





 A	18	 B	1.8
 C	0.18	 D	0.018

$$7 \times 0.3$$





 A	21	 B	20.1
 C	0.21	 D	2.1







$$7 \times 0.3$$

 A	21	 B	20.1
 C	0.21	 D	2.1





$$5 \times 0.6$$

 A	3	 B	30
 C	0.3	 D	0.30





$$5 \times 0.6$$

 A	3	 B	30
 C	0.3	 D	0.30





$$4 \times 0.12$$

 A	4.8	 B	48
 C	40.8	 D	0.48





$$4 \times 0.12$$

 A	4.8	 B	48
 C	40.8	 D	0.48





$$3 \times 0.03$$

 A	0	 B	0.09
 C	0.009	 D	0.9

$$3 \times 0.03$$





 A	0	 B	0.09
 C	0.009	 D	0.9

$$7 \times 1.1$$





 A	77	 B	7.7
 C	0.77	 D	7.07







$$7 \times 1.1$$

 A	77	 B	7.7
 C	0.77	 D	7.07





$$1.2 \times 5$$

 A	60	 B	0.6
 C	0.60	 D	6





$$1.2 \times 5$$

 A	60	 B	0.6
 C	0.60	 D	6





$$0.4 \times 0.2$$

 A	8	 B	0.8
 C	0.08	 D	0.008





$$0.4 \times 0.2$$

 A	8	 B	0.8
 C	0.08	 D	0.008

$$0.8 \times 0.7$$

 A	0.56	 B	56
 C	5.06	 D	5.6

$$0.8 \times 0.7$$

 A	0.56	 B	56
 C	5.06	 D	5.6



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How **confident** do you feel with this topic?

Write **red**, **amber** or **green** in your book!

**Complete the corresponding activity** 😊

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## Answers

a)	15	b)	6.864
c)	5585.7	d)	25.55
e)	339	f)	855.4
g)	190.12	h)	458.4

a)	15p	b)	£6.86
c)	£55.86	d)	£25.55
e)	£339	f)	855.4kg
g)	£190.12	h)	£458.40
i)	£73.02	j)	£214.24

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**Plenary**

Write your own worded question using multiply or dividing decimals

...Then swap with your partner and solve them!

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