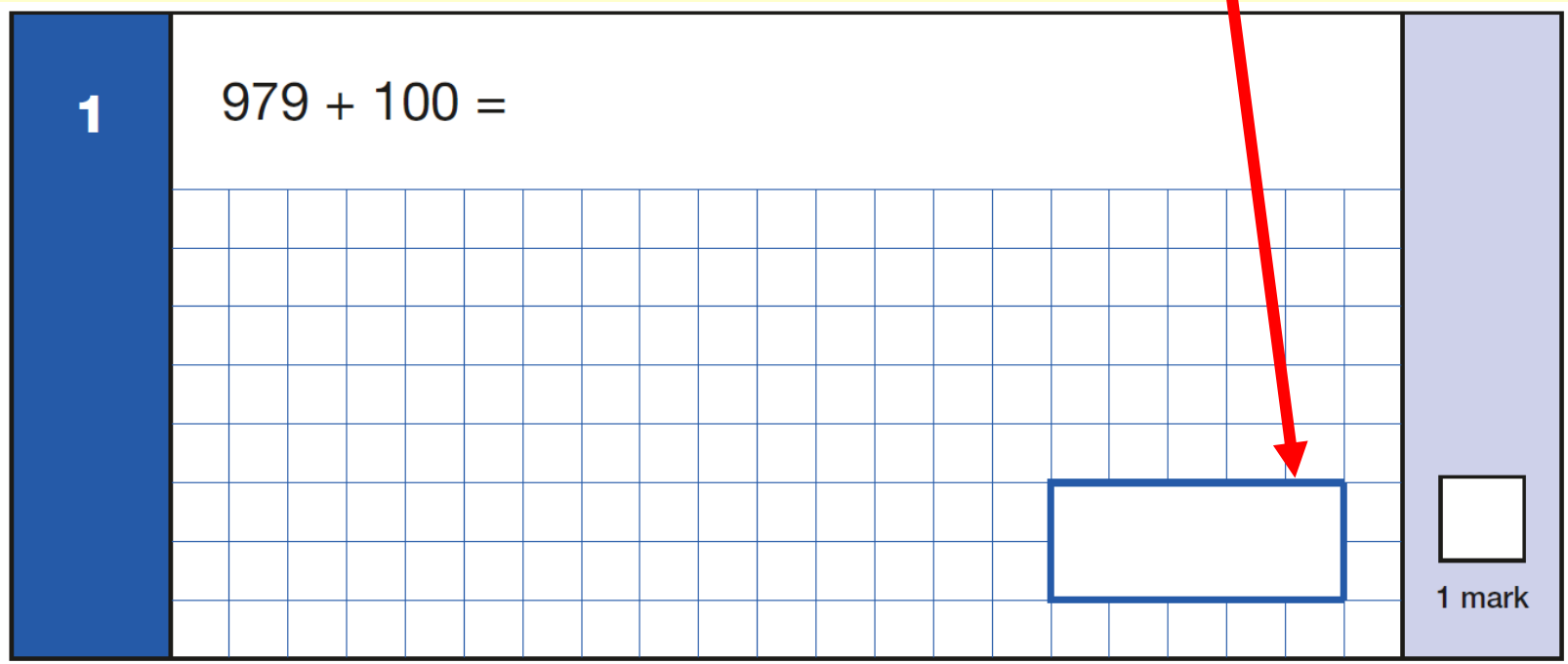
Mathematics revision

Year 6 (2016)

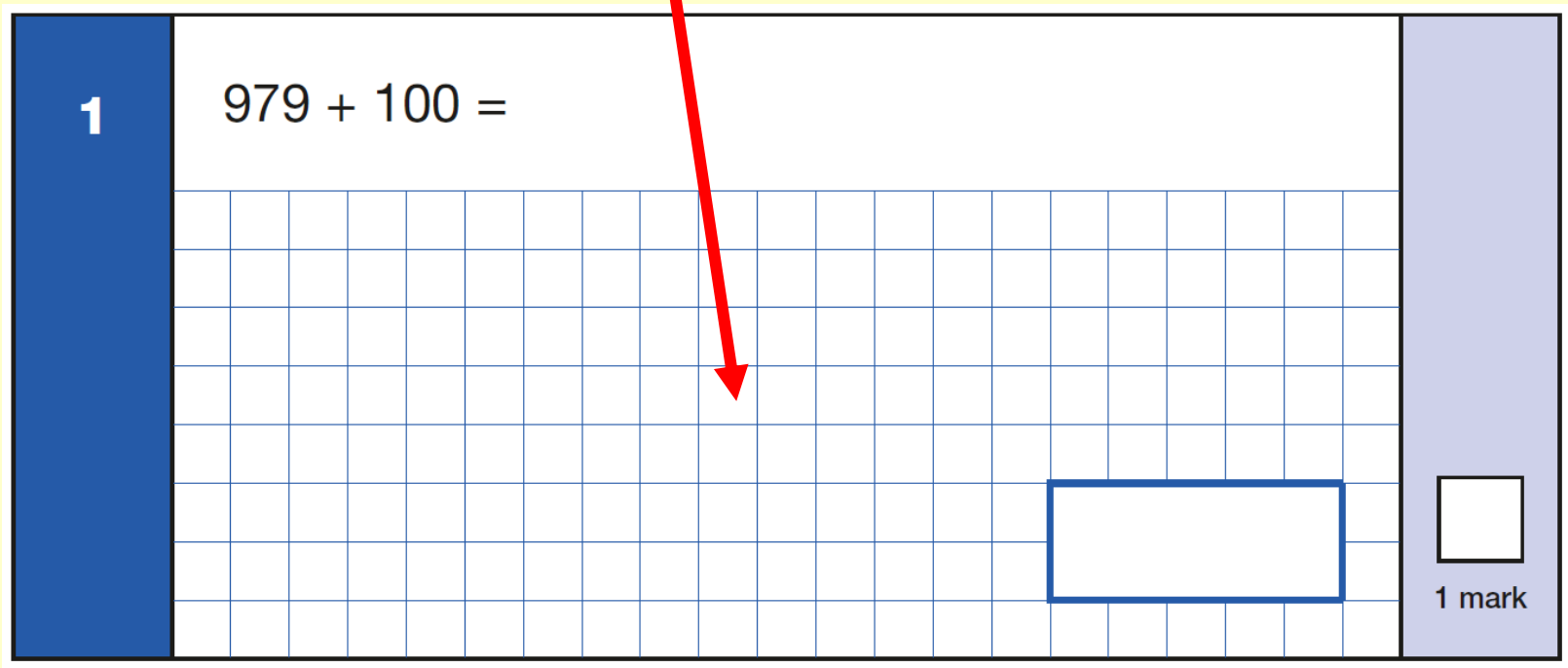
Arithmetic test recap


KEEP CALM
BE BRILLIANT
AND
NEVER
GIVE UP

- Do not write anywhere that is shaded and do not write on the bar code.
- Make your answer clear in the box.
- If you go wrong, put a neat line through it and write it again.
- If you are unsure, ask!

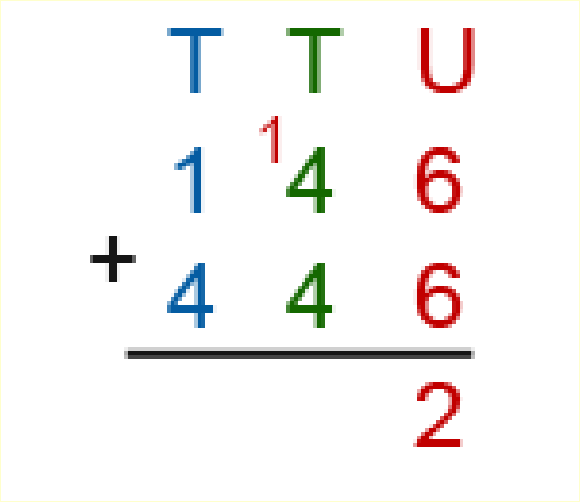


- Use the squares for your written methods, that is what they are for!
- Write neatly and use one digit per square



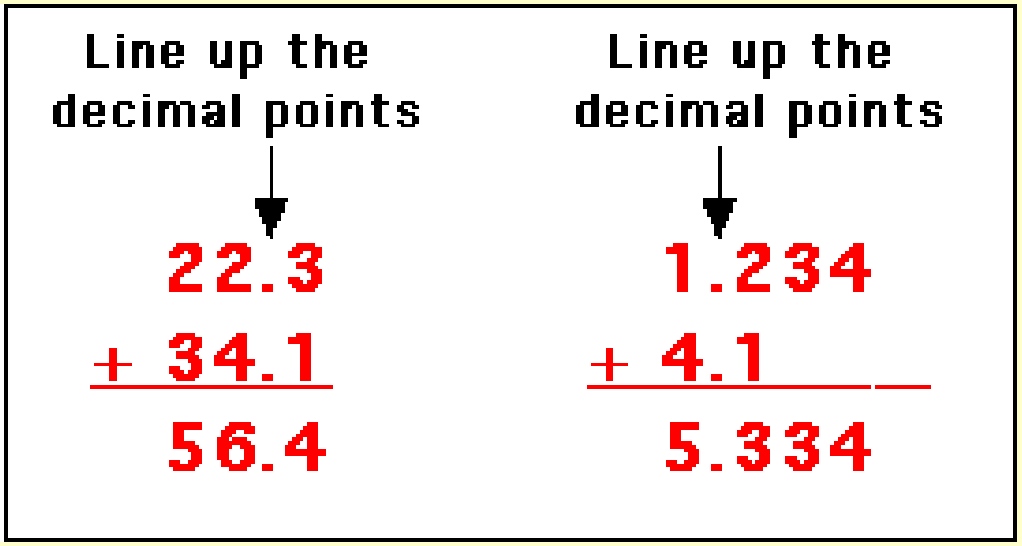
Top tips

- Use a written method to check your answer (even the obvious ones). Don't work it out in your head – use the grid squares on the paper to write your written column method.



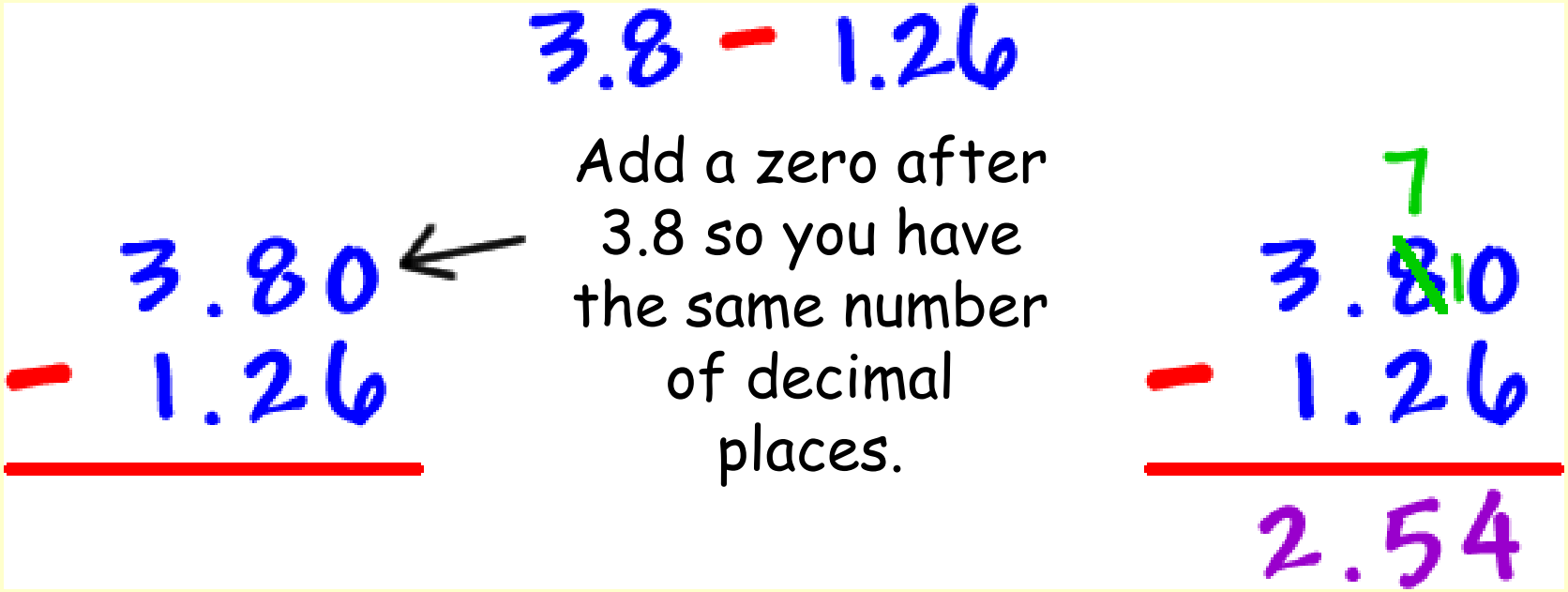
Top tips

- Adding and subtracting decimals
- Line up the decimal point when adding and subtracting decimals.



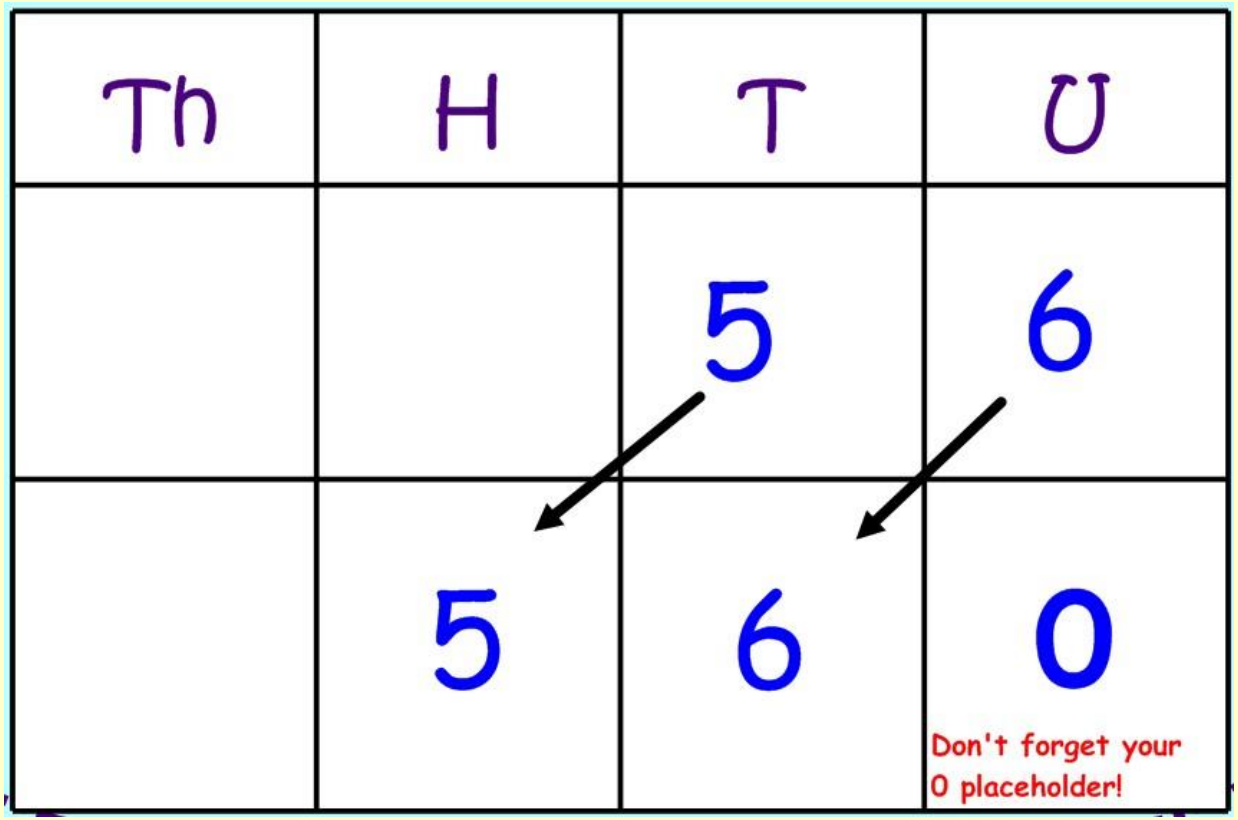
Top tips

- Subtracting decimals
- Add in zeros (at the end of a decimal number) when subtracting



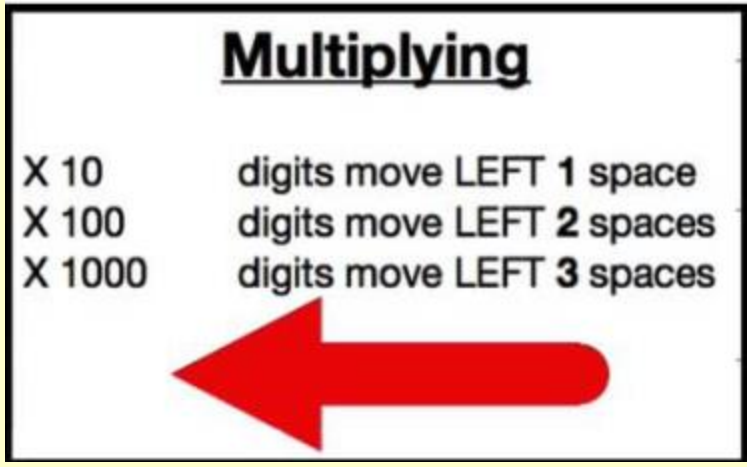
Top tips

- Multiplying by 10



Top tips

- Multiplying by 10, 100, 1000

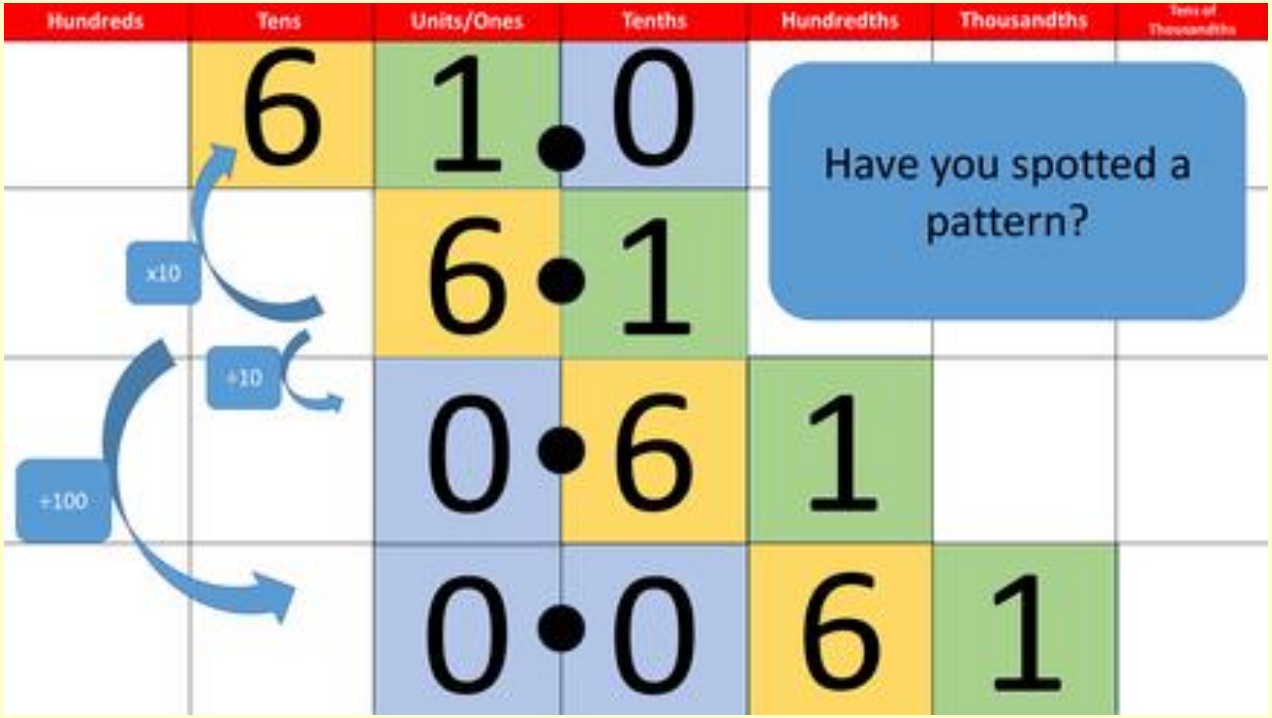


Th	H	T	U
		5	6
	5	6	0

Don't forget your 0 placeholder!

Top tips

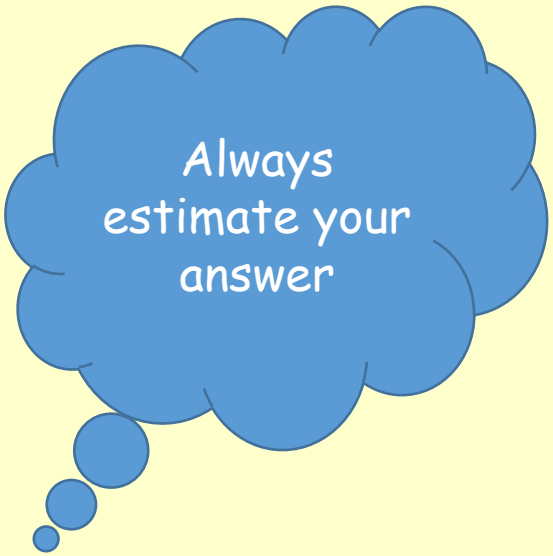
- Multiplying and dividing by 10, 100, 1000



Top tips

- Multiplying decimals by whole numbers

E.g. 2.43 x 7

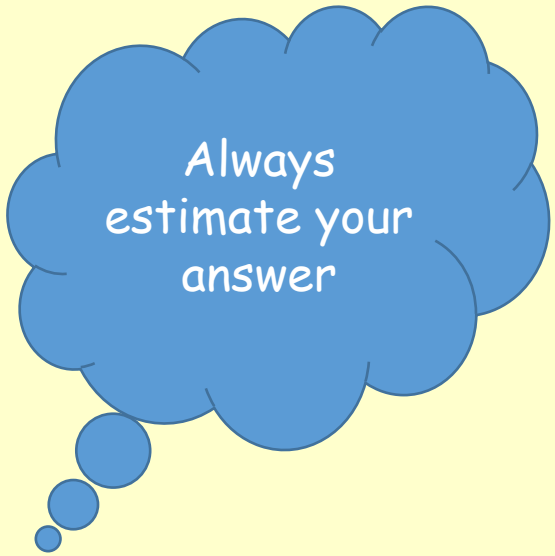


Top tips

- Multiplying decimals by whole numbers

E.g. 2.43 x 7

2.43 is between 2 and 3



Top tips

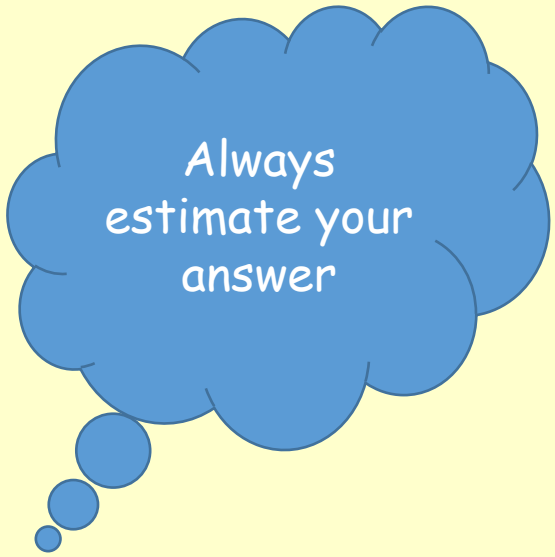
- Multiplying decimals by whole numbers

E.g. 2.43 x 7

2.43 is between 2 and 3

2 x 7 = 14, 3 x 7 = 21

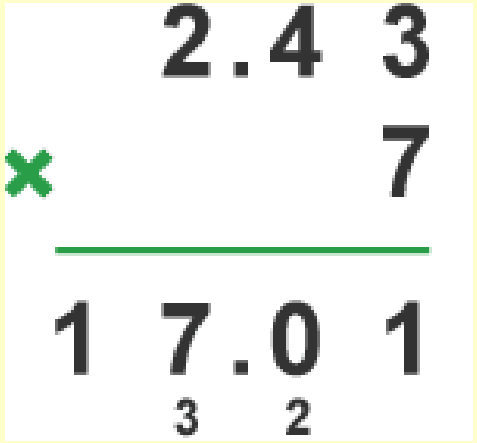
So my answer is between 14 and 21.



Top tips

- Multiplying decimals by whole numbers

E.g. 2.43 x 7



Don't forget the decimal point!

Top tips

- Rounding numbers

Round 32987.9:

- To the nearest whole number =
- To the nearest ten =
- To the nearest hundred =
- To the nearest thousand =
- To the nearest ten thousand =

Top tips

- Rounding numbers

Round 32987.9:

- To the nearest whole number = 32988
- To the nearest ten = 32990
- To the nearest hundred = 33000 (careful)
- To the nearest thousand = 33000
- To the nearest ten thousand = 30000

Top tips

Square numbers

- $1^2 = 1 \times 1 = 1$
- $2^2 = 2 \times 2 = 4$
- $3^2 = 3 \times 3 = 9$
- $4^2 = 4 \times 4 = 16$

…

Cube numbers

- $1^3 = 1 \times 1 \times 1 = 1$
- $2^3 = 2 \times 2 \times 2 = 8$
- $3^3 = 3 \times 3 \times 3 = 27$
- $4^3 = 4 \times 4 \times 4 = 64$

…

Top tips

BODMAS

3 + 2 x 7 =

Top tips

BODMAS

3 + 2 x 7 = 3 + 14 =

Top tips

BODMAS

$3 + 2 \times 7 = 3 + 14 = 17$

Top tips

BODMAS

$11 - 3 \times 2^2 =$

Top tips

BODMAS

$11 - 3 \times 2^2 = 11 - 3 \times 4 =$

Top tips

BODMAS

$11 - 3 \times 2^2 = 11 - 3 \times 4 = 11 - 12 =$

Top tips

BODMAS

$11 - 3 \times 2^2 = 11 - 3 \times 4 = 11 - 12 = -1$

Top tips

FDP

- $0.1 = \frac{1}{10} = \frac{10}{100} = 10\%$
- $0.2 = \frac{2}{10} = \frac{20}{100} = 20\% = \frac{1}{5}$
- $0.3 = \frac{3}{10} = \frac{30}{100} = 30\%$

Top tips

FDP

- $0.4 = \frac{4}{10} = \frac{40}{100} = 40\% = \frac{2}{5}$
- $0.5 = \frac{5}{10} = \frac{50}{100} = 50\% = \frac{1}{2}$
- $0.6 = \frac{6}{10} = \frac{60}{100} = 60\% = \frac{3}{5}$

Top tips

FDP

- 0.33… = $\frac{1}{3}$ = 33.333..%
- 0.66… = $\frac{2}{3}$ = 66.666..%

$\frac{1}{4}$ = 0.25 = 25%

$\frac{1}{2}$ = 0.5 = 50%

$\frac{3}{4}$ = 0.75 = 75%

Top tips

- Fractions of amounts:

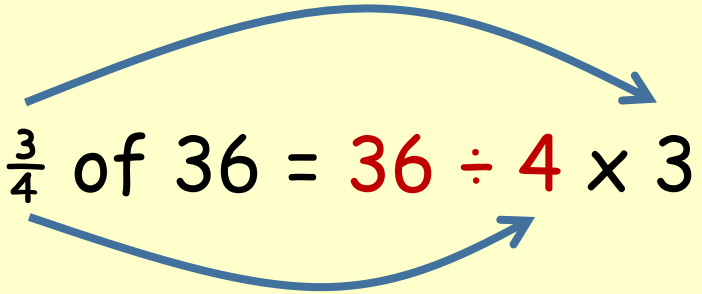
E.g.

$\frac{3}{4}$ of 36 =

Top tips

- Fractions of amounts:

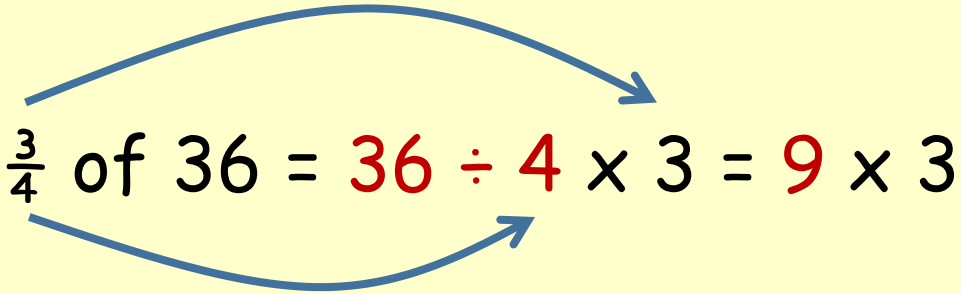
E.g.



Top tips

- Fractions of amounts:

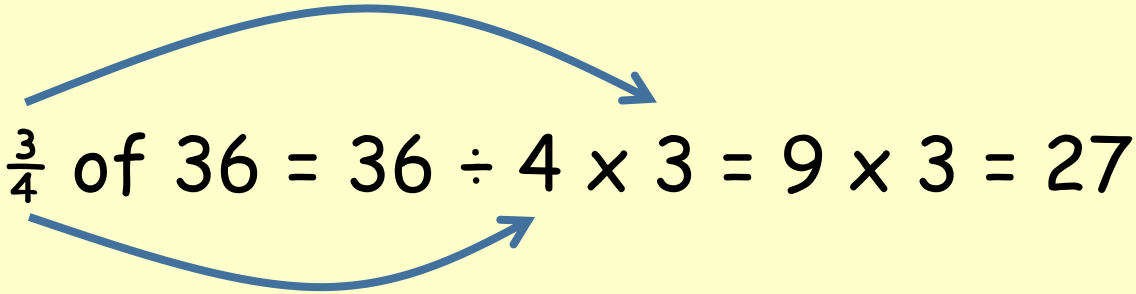
E.g.



Top tips

- Fractions of amounts:

E.g.



Top tips

- Remember:

of means times (x) so

$$\frac{3}{4} \times 36 = \frac{3}{4} \text{ of } 36 = 27$$

Times by the numerator

Divide by the denominator

Top tips

- Percentages of amounts:

E.g.

15% of 240

Top tips

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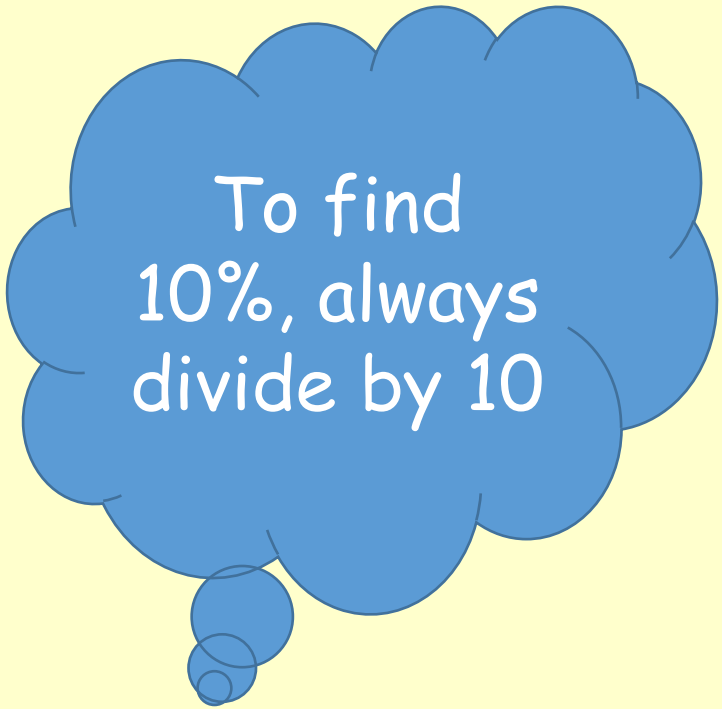
E.g.

15% of 240



Top tips

- Percentages of amounts:

E.g.

15% of 240

10% of 240 =

Top tips

- Percentages of amounts:

E.g.

15% of 240

10% of 240 = 240 ÷ 10 =

Top tips

- Percentages of amounts:

E.g.

15% of 240

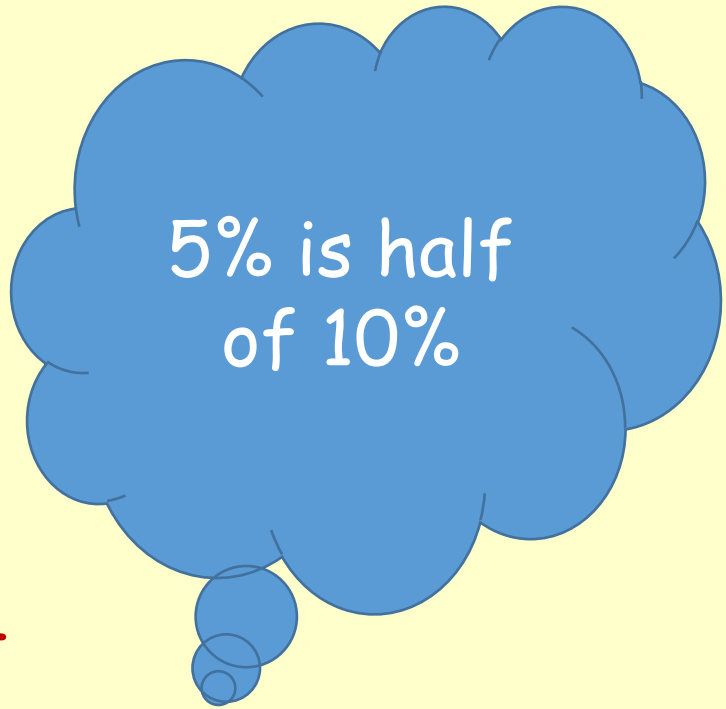
10% of 240 = 240 ÷ 10 = 24

Top tips

- Percentages of amounts:

E.g.

15% of 240



10% of 240 = 240 ÷ 10 = 24

5% of 240 =

Top tips

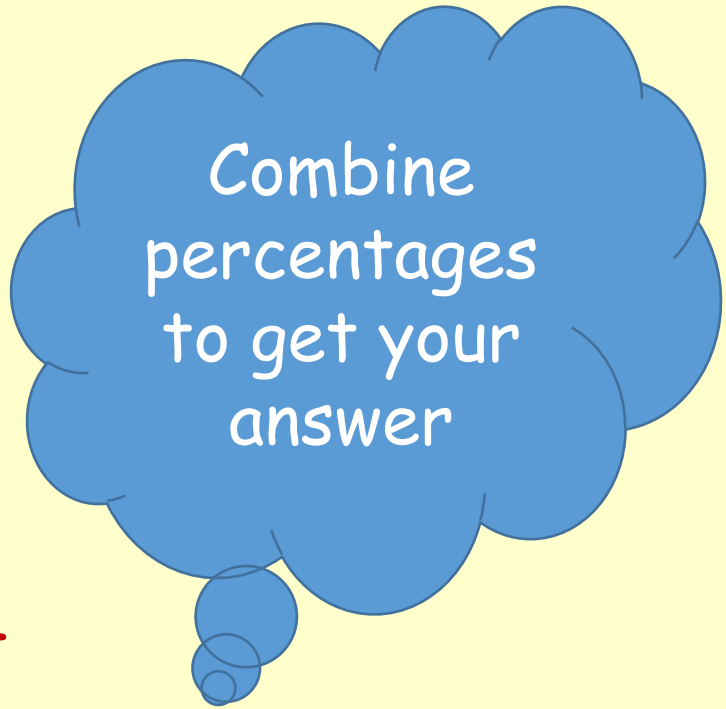
- Percentages of amounts:

E.g.

15% of 240

10% of 240 = 240 ÷ 10 = 24

5% of 240 = 12

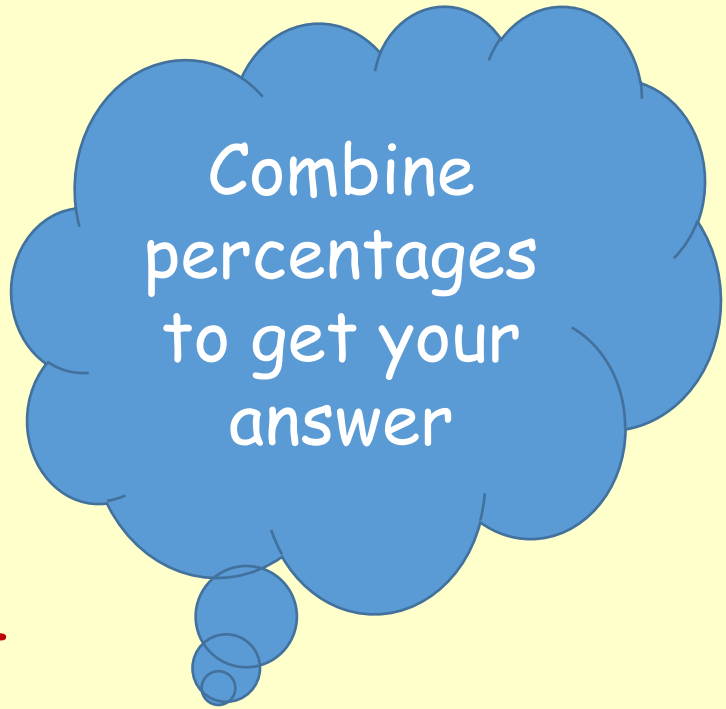


Top tips

- Percentages of amounts:

E.g.

15% of 240



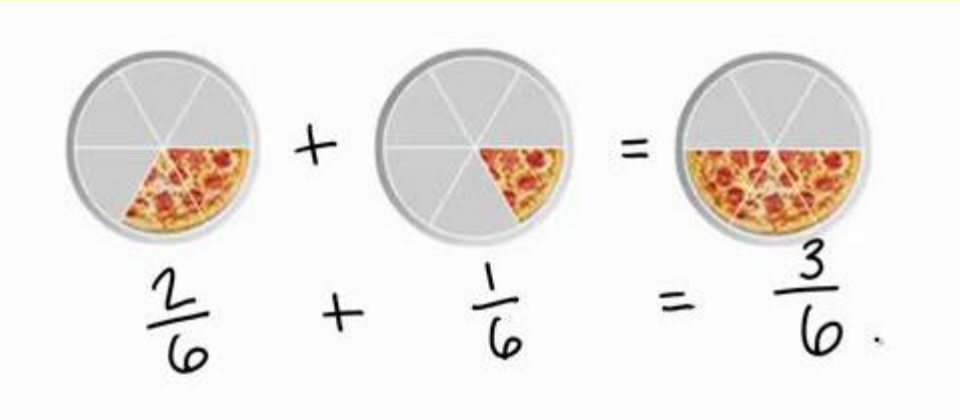
10% of 240 = 240 ÷ 10 = 24

5% of 240 = 12

15% of 240 = 24 + 12 = 36

Top tips

- Adding and subtracting fractions



Never add the denominators

Top tips

- Adding and subtracting fractions

the original fractions: $\frac{1}{3}+\frac{1}{2}$

with a common denominator: $\frac{2}{6}+\frac{3}{6}$

result: $\frac{5}{6}$

Never add the denominators

Top tips

- Multiplying fractions

$$\frac{3}{5} \times \frac{6}{7} = \frac{3 \times 6}{5 \times 7} = \frac{18}{35}$$

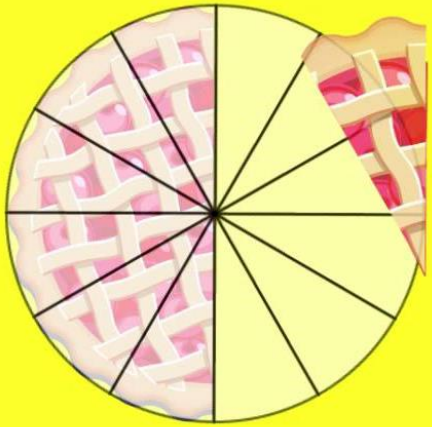
- (Sometimes you may need to simplify your answer).

Top tips

- Dividing fractions

Multiply the denominator by the number you are dividing. This is your <u>new denominator</u>.

$\frac{1}{2} \div 6 =$



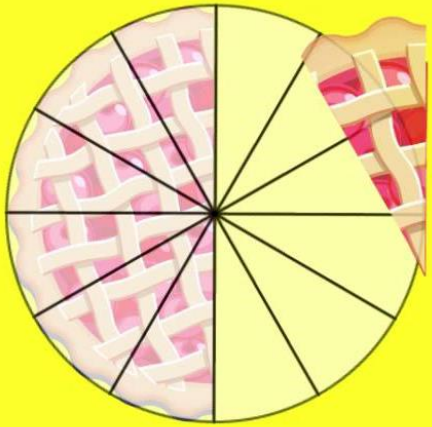
$6 \times 2 = 12$

Top tips

- Dividing fractions

Multiply the denominator by the number you are dividing. This is your new denominator.

$$\frac{1}{2} \div 6 = \frac{1}{12}$$



$6 \times 2 = 12$

Top tips

- Dividing fractions

$\frac{2}{3} \div 6 =$

- (You may need to simplify your answer.)

Top tips

- Dividing fractions

$$\frac{2}{3} \div 6 = \frac{2}{18}$$

- (You may need to simplify your answer.)

Top tips

- Dividing fractions

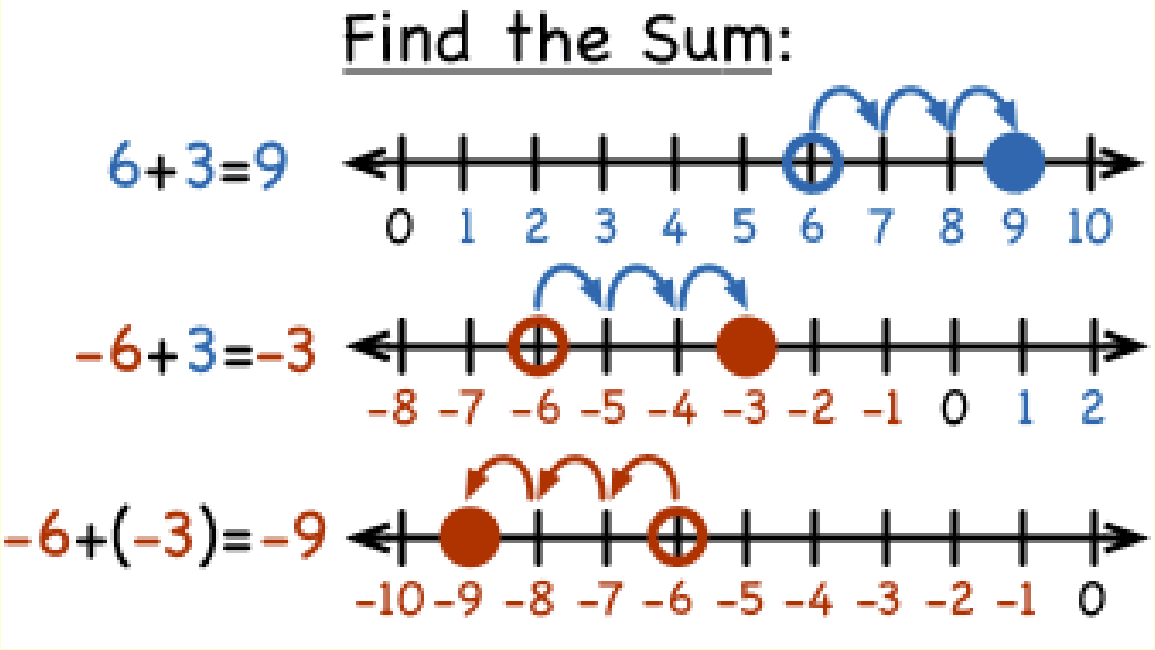
$$\frac{2}{3} \div 6 = \frac{2}{18} = \frac{1}{9}$$

- (You may need to simplify your answer.)

Top tips

- Negative numbers

Draw a number line to help



Answers

- Remember to place your answer clearly in the answer box.
- Does your answer have a decimal point?
- If it is a division question, have you included the remainder?

Answers – 2 mark questions

- Long multiplication and long division would be expected.
- However, if you really get stuck, try using a different method but you will only get 2 marks if you get the correct answer. No other marks will be awarded.

Answers - fractions

- If you can, cancel down your fraction to its simplest form

E.g. $\frac{8}{10} = \frac{4}{5}$

Answers - fractions

- A question that is a mixed number should have the answer as a mixed number.

E.g.

$3\frac{1}{2} + 2\frac{1}{4} = \frac{7}{2} + \frac{9}{4} =$

Answers - fractions

- A question that is a mixed number should have the answer as a mixed number.

E.g.

$3\frac{1}{2} + 2\frac{1}{4} = \frac{7}{2} + \frac{9}{4} = \frac{14}{4} + \frac{9}{4} =$

Answers - fractions

- A question that is a mixed number should have the answer as a mixed number.

E.g.

$3\frac{1}{2} + 2\frac{1}{4} = \frac{7}{2} + \frac{9}{4} = \frac{14}{4} + \frac{9}{4} = \frac{23}{4}$

Answers - fractions

- A question that is a mixed number should have the answer as a mixed number.

E.g.

$3\frac{1}{2} + 2\frac{1}{4} = \frac{7}{2} + \frac{9}{4} = \frac{14}{4} + \frac{9}{4} = \frac{23}{4} = 5\frac{3}{4}$

Finished?

- Double check all your work carefully and use **all** the time given.


GOOD
:) LUCK!