

Mathematics

Exploring division strategies



OAK
NATIONAL
ACADEMY

Lesson Agenda

Divide by 100 using place value

Divide by 100 using grouping strategy

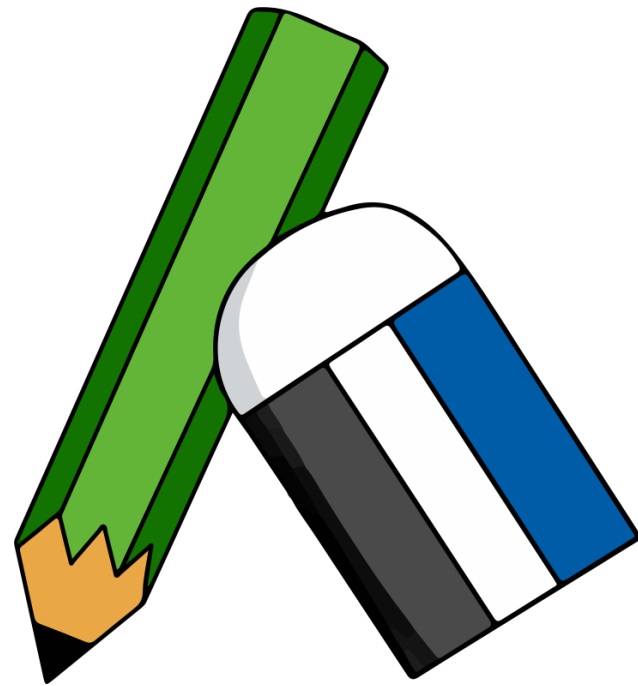
Practise activity

Independent task and review



You will need...

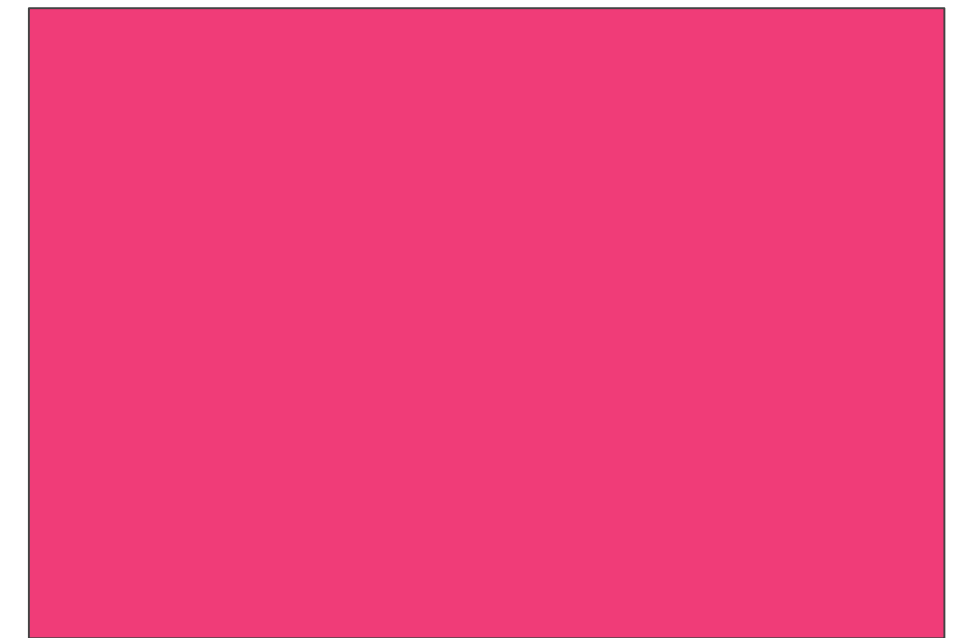
Pencil or pen



Paper



Hundreds 100s	Tens 10s	Ones 1s
 		
		 



$\div 100$

$$200 \div 100 = 2$$



Let's divide!



$$100 \div 100 = 1$$



Let's divide!



$$200 \div 100 = 2$$



Let's divide!



$$300 \div 100 = 3$$



Let's divide!



$$400 \div 100 = 4$$



Let's divide!



$$500 \div 100 = 5$$



Let's divide!



$$600 \div 100 = 6$$



Let's divide!



$$700 \div 100 = 7$$



Let's divide!



$$800 \div 100 = 8$$



Let's divide!



$$900 \div 100 = 9$$



Let's divide!



$$1000 \div 100 = 10$$







$$500 \div 100 = 5$$





$$50 \div 10 = 5$$





$$40 \times 10 = 400$$





$$14 \times 10 = 140$$





$$800 \div 100 = 8$$





$$250 \div 10 = 25$$





$$720 \div 10 = 72$$





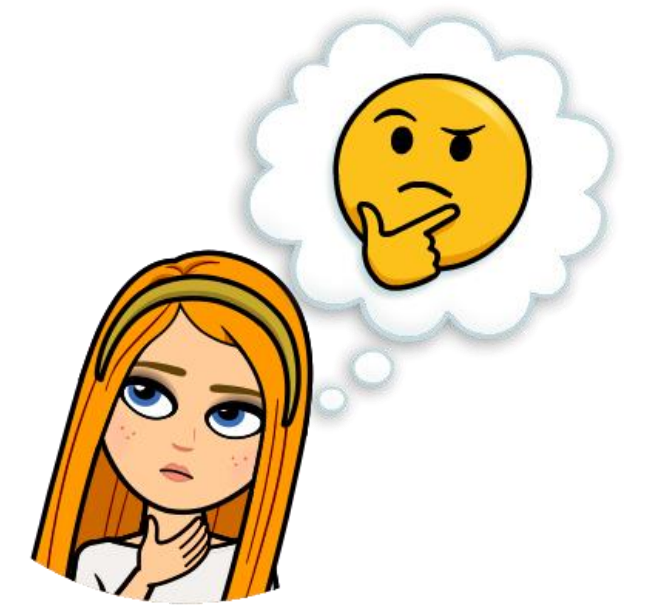
$$900 \div 100 = 9$$





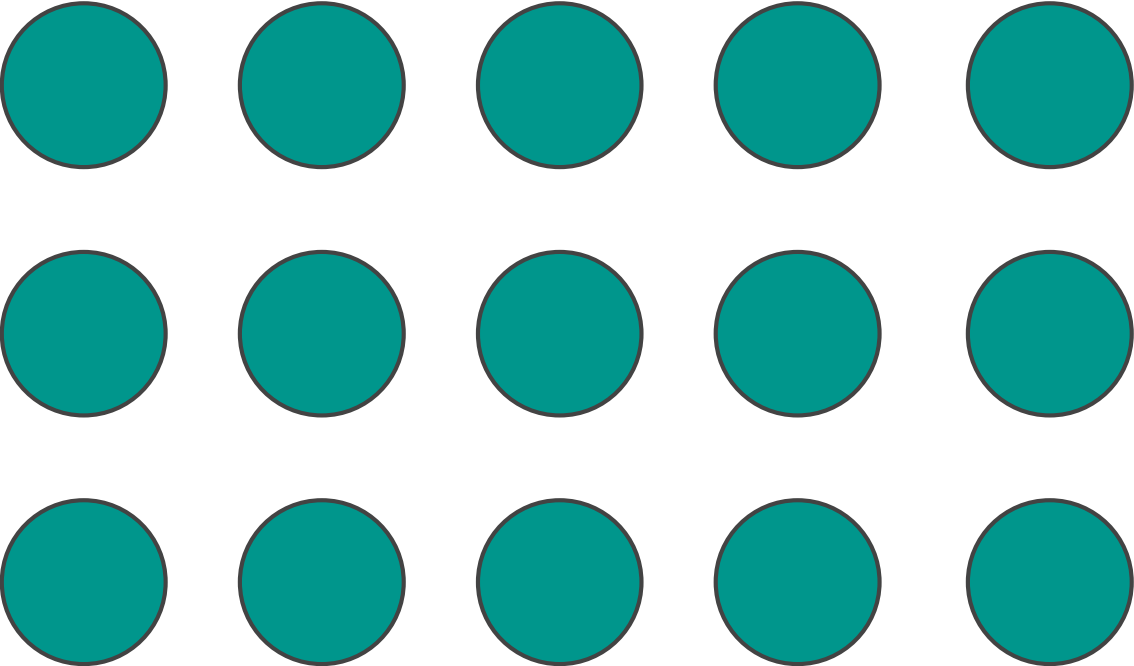
$$9 \times 100 = 900$$

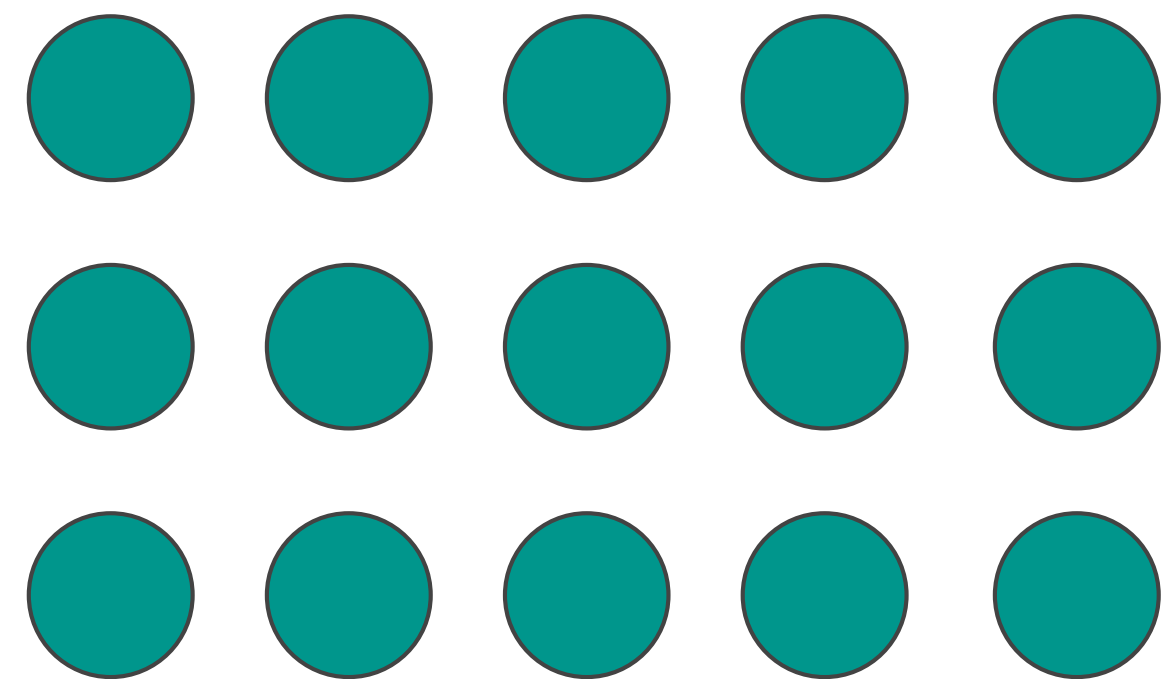




place value grouping

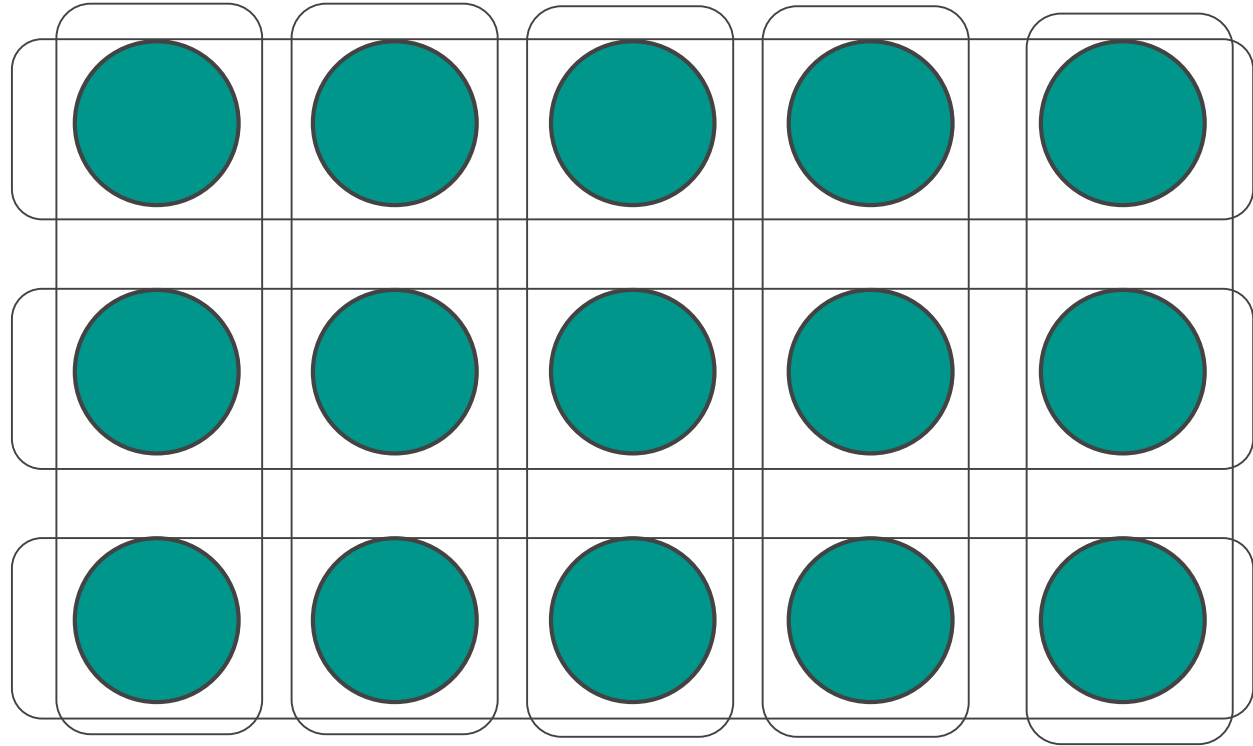






Four horizontal rectangular boxes, stacked vertically, intended for text input. Each box is light gray with a thin black border.





$$5 \times 3 = 15$$

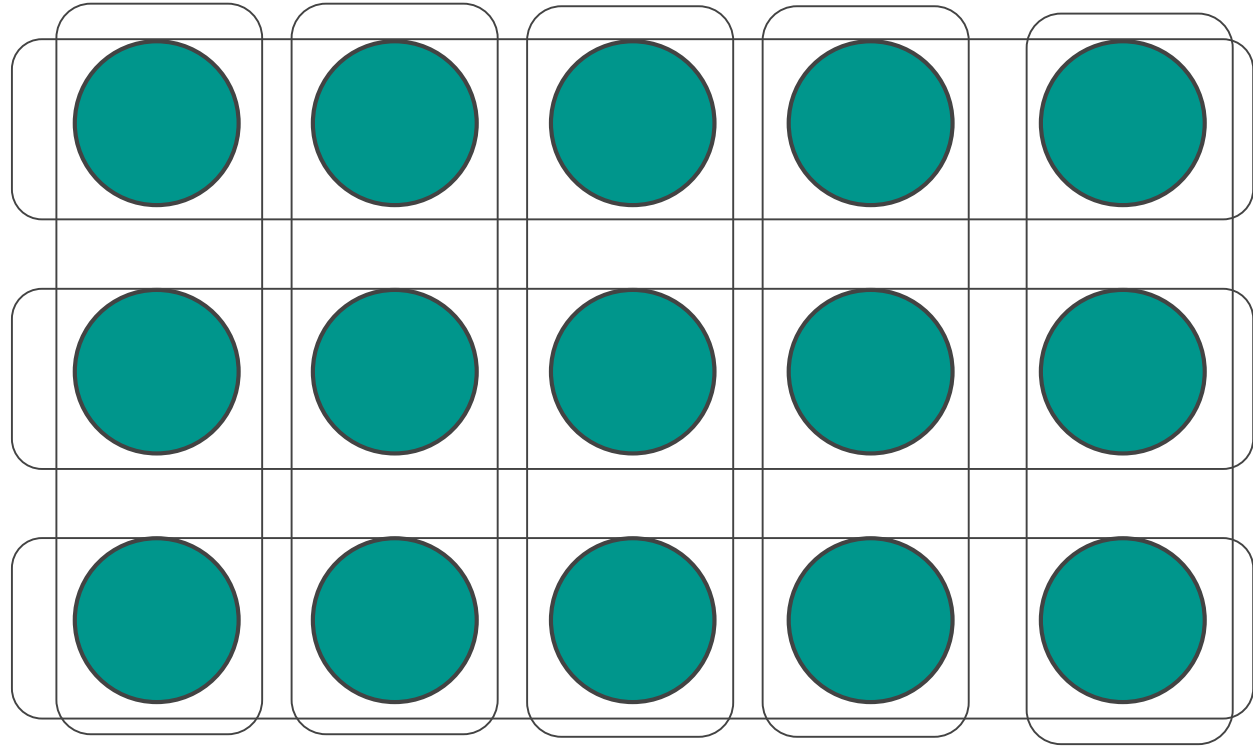
$$3 \times 5 = 15$$



commutative

If you change the order of the factors, **the product remains the same.**





sharing

grouping

$$5 \times 3 = 15$$

$$3 \times 5 = 15$$

$$15 \div 5 = 3$$

$$15 \div 3 = 5$$



grouping

$$15 \div 3 = 5$$

dividend

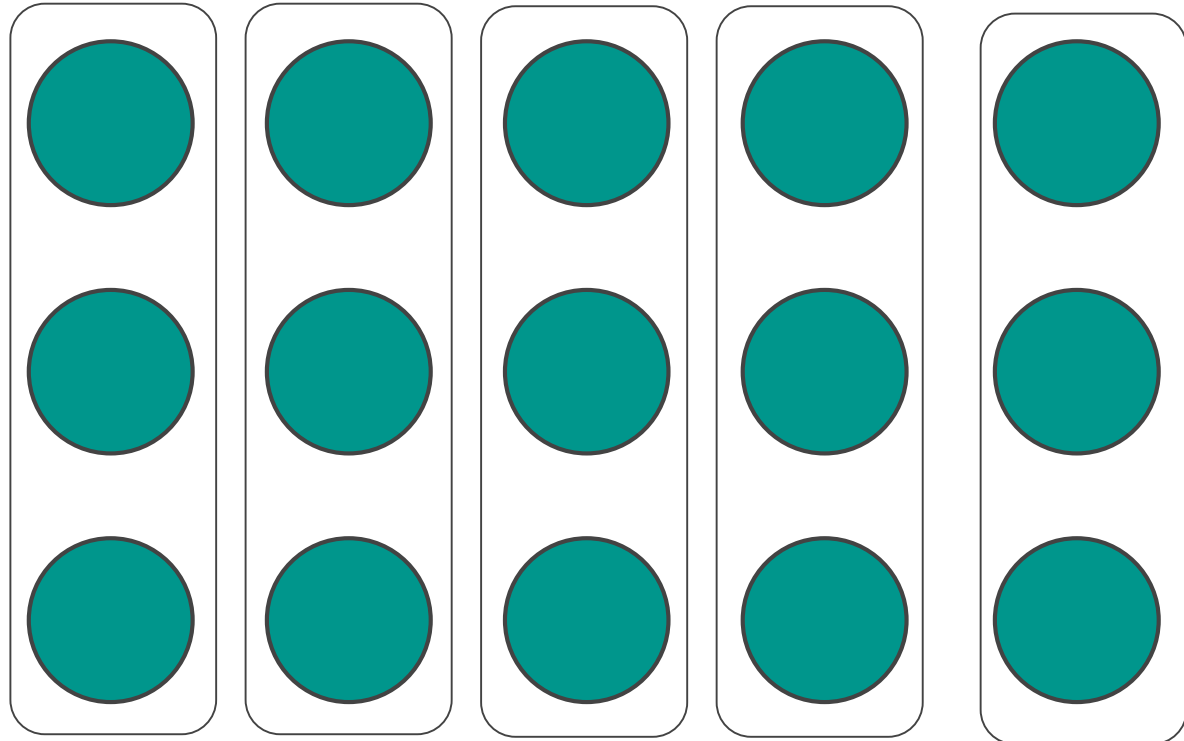
divisor

quotient

The diagram illustrates the components of a division equation. The equation $15 \div 3 = 5$ is centered. Below the number 15 is the label 'dividend' in blue, with a blue arrow pointing to 15. Below the number 3 is the label 'divisor' in pink, with a pink arrow pointing to 3. Below the number 5 is the label 'quotient' in teal, with a teal arrow pointing to 5.



$$15 \div 3 = 5$$



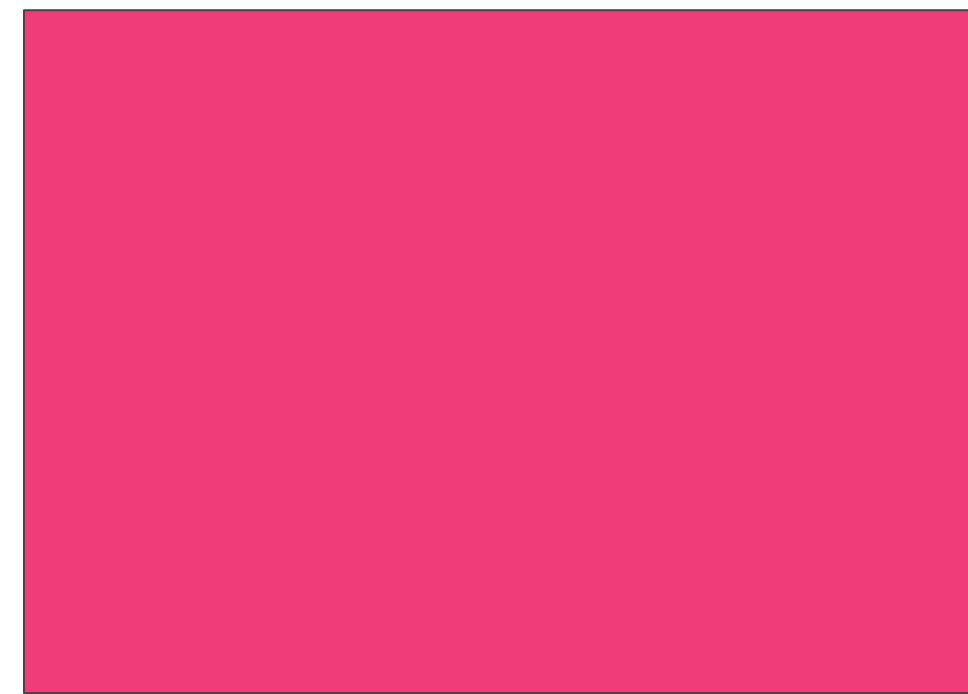
$$5 \times 3 = 15$$

My whole is 15.

I made equal parts by grouping in threes.

There are 5 equal groups of 3.

15 divided by 3 is 5.





Hundreds 100s	Tens 10s	Ones 1s
  		
		
		
		

÷ 100

groups of
100

300 ÷ 100 = 3

3 hundreds = 300





Hundreds 100s	Tens 10s	Ones 1s

$$600 \div 100 = \square$$

$$160 \div 10 = \square$$

$$800 \div 100 = \square$$

$$\square = 70 \div 10$$

$$\square = 400 \div 100$$





Hundreds 100s	Tens 10s	Ones 1s

$$600 \div 100 = \boxed{6}$$

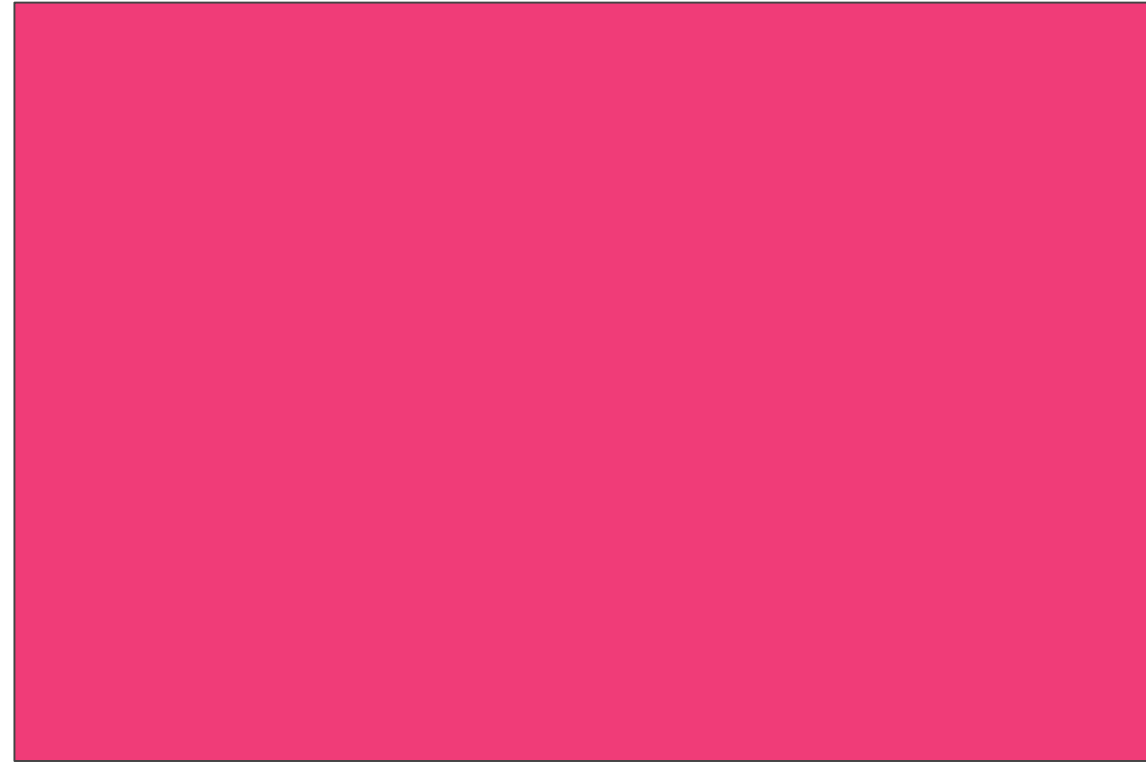
$$160 \div 10 = \boxed{16}$$

$$800 \div 100 = \boxed{8}$$

$$\boxed{7} = 70 \div 10$$

$$\boxed{4} = 400 \div 100$$





efficient



Independent task

$$60 \div 10 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 800 \div 100$$

$$\underline{\hspace{2cm}} = 700 \div 100$$

$$70 \div 10 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 100 \div 100$$

$$\underline{\hspace{2cm}} = 250 \div 10$$

$$600 \div 100 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 160 \div 10$$

$$\underline{\hspace{2cm}} = 300 \div 10$$

$$610 \div \underline{\hspace{2cm}} = 61$$

$$92 = \underline{\hspace{2cm}} \div 10$$

$$50 = \underline{\hspace{2cm}} \div 100$$

Grayson and Katie are dividing numbers by 10 and 100. They both start with the same three digit number.

Can you work out what number they each started with?

Grayson said: **My answer has 6 tens and zero ones.**

Katie said: **My answer has 6 ones.**

They both started with _____.

Grayson divided by _____.

Katie divided by _____.



Independent task

$$60 \div 10 = 6$$

$$8 = 800 \div 100$$

$$7 = 700 \div 100$$

$$70 \div 10 = 7$$

$$1 = 100 \div 100$$

$$25 = 250 \div 10$$

$$600 \div 100 = 6$$

$$16 = 160 \div 10$$

$$30 = 300 \div 10$$

$$610 \div 10 = 61$$

$$92 = 920 \div 10$$

$$5 = 500 \div 100$$

Grayson and Katie are dividing numbers by 10 and 100. They both start with the same three digit number.

Can you work out what number they each started with?

Grayson said: **My answer has 6 tens and zero ones.**

Katie said: **My answer has 6 ones.**

They both started with **600**.

Grayson divided by **10**.

Katie divided by **100**.

