



Monday 17th January 2022

Multiplying and dividing by 10 and multiples of 10

1. When I multiply a number by 10, I make it _____ times bigger.

2. Answer the calculations below:

$0.3 \times 10 =$

$3 \times 10 =$

$30 \times 10 =$

$300 \times 10 =$

$4 \div 10 =$

$30 \div 10 =$

$640 \div 10 =$

$3120 \div 10 =$

$345 \times 10 =$

$0.54 \times 10 =$

$645 \times 10 =$

$56 \times 10 =$

$123 \div 10 =$

$4500 \div 10 =$

$0.7 \div 10 =$

$21 \div 10 =$

$6 \times 10 =$

$6 \times 20 =$

$6 \times 30 =$

$6 \times 50 =$



$430 \times 20 =$



$33 \times 30 =$



$5 \times 40 =$

$0.5 \times 20 =$

$0.04 \times 30 =$

Thousands	Hundreds	Tens	Ones		Tenths	Hundredths
						

Thousands	Hundreds	Tens	Ones		Tenths	Hundredths
						

Thousands	Hundreds	Tens	Ones		Tenths	Hundredths
						



1. Carlos has 3,897 grains of rice.

Tayla has 10 times as many grains of rice as Carlos.

Mike has 100 times as many grains of rice as Tayla.

How many do they have altogether?

2. Which number does not belong?
Convince me.

A. 664

B. 960

C. 9,600

D. 9,662

E. 66,400

3. Annie has multiplied a whole number by 20

Her answer is between 440 and 540

What could her original calculation be?

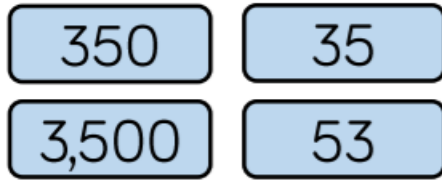
How many possibilities can you find?



W/c 17th January 2022—Session 1

Chilli Challenge—Multiplying and dividing by 10 and multiples of 10

Four children are in a race. The numbers on their vests are:



Use the clues to match each vest number to a child.

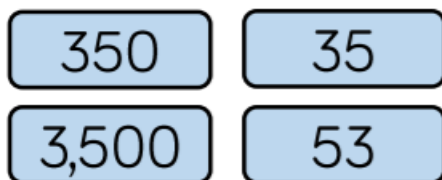
- Jack's number is ten times smaller than Mo's.
- Alex's number is not ten times smaller than Jack's or Dora's or Mo's.
- Dora's number is ten times smaller than Jack's.



W/c 17th January 2022—Session 1

Chilli Challenge—Multiplying and dividing by 10 and multiples of 10

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Use the clues to match each vest number to a child.

- Jack's number is ten times smaller than Mo's.
- Alex's number is not ten times smaller than Jack's or Dora's or Mo's.
- Dora's number is ten times smaller than Jack's.



1. 'Fill in the missing numbers.'

$\times 100$ →		$\times 100$ →	
<input type="text" value="11"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="3,500"/>
← $\div 100$		← $\div 100$	
$\div 100$ →		$\div 100$ →	
<input type="text" value="600"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="13"/>

2. 'Draw lines to match up the pairs of calculations.'

I can use this calculation...	...to help me solve this calculation.
<input type="text" value="6 × 3 ="/>	<input type="text" value="8 × 20 ="/>
<input type="text" value="5 × 4 ="/>	<input type="text" value="60 × 3 ="/>
<input type="text" value="8 × 2 ="/>	<input type="text" value="9 × 30 ="/>
<input type="text" value="9 × 3 ="/>	<input type="text" value="50 × 4 ="/>

3. Answer the calculations below:

$0.4 \times 100 =$

$40 \times 100 =$

$4000 \div 100 =$

$40 \times 10 =$

$0.06 \times 100 =$

$7 \div 10 =$

$7 \div 100 =$

$3450 \div 100 =$

$5 \times 300 =$

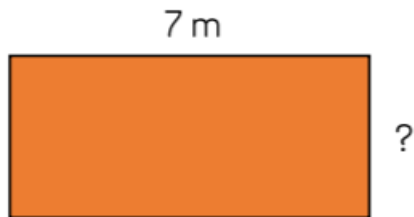
$0.3 \times 200 =$

$7 \times 300 =$

$30 \times 400 =$



1. The perimeter of the rectangle is 26 m.
Find the length of the missing side.
Give your answer in cm.



2. Eva and Whitney are dividing numbers by 10 and 100
They both start with the same 4-digit number.

They give some clues about their answer.



Eva

My answer has 8 ones
and 2 tens.

My answer has 2
hundreds, 8 tens and 0
ones.



Whitney

What number did they both start with?
Who divided by what?



W/C 17th January 2022—Session 2

Chilli Challenge—Multiplying and dividing by 100 and multiples of 100

Use the digit cards to fill in the missing digits.



$$170 \div 10 = _ _ _$$

$$_20 \times 10 = 3,_00$$

$$1,8_0 \div 10 = 1_6$$

$$_9 \times 100 = 5,_00$$

$$6_ = 6,400 \div 100$$

You can only use each card once



W/C 17th January 2022—Session 2

Chilli Challenge—Multiplying and dividing by 100 and multiples of 100

Use the digit cards to fill in the missing digits.



$$170 \div 10 = _ _ _$$

$$_20 \times 10 = 3,_00$$

$$1,8_0 \div 10 = 1_6$$

$$_9 \times 100 = 5,_00$$

$$6_ = 6,400 \div 100$$

You can only use each card once

MPI: using short multiplication with regrouping.

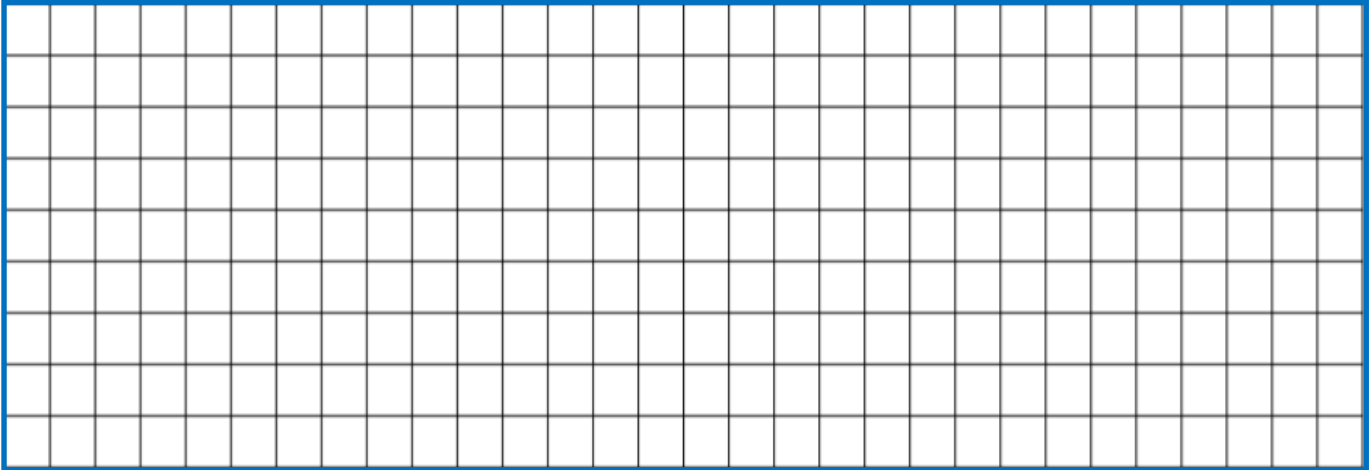
'Use short multiplication to do these calculations.'

3×52

62×4

3×72

71×8



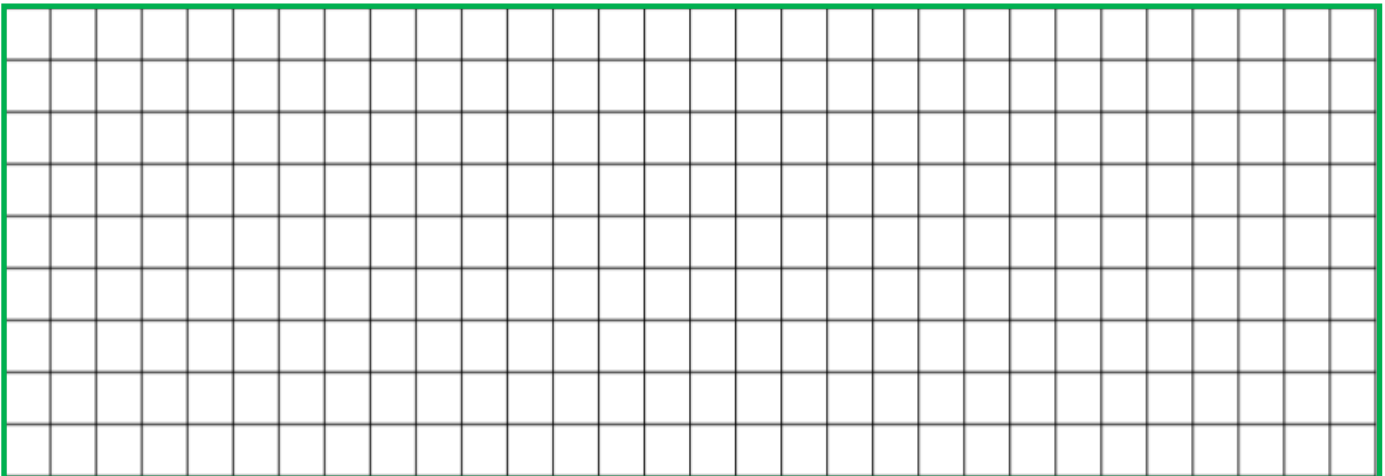
'Use short multiplication to do these calculations.'

43×8

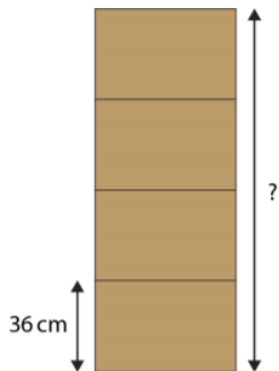
54×6

73×7

80×5



'If all of these boxes are the same height, how tall is the stack of boxes?'



Challenge

'Fill in the missing digits.'

$$\begin{array}{r} 5 \square \\ \times \quad 3 \\ \hline \square \square 9 \end{array} \qquad \begin{array}{r} 7 \ 2 \\ \times \quad \square \\ \hline 1 \ 4 \ \square \end{array}$$

Without completing the calculations, circle the ones that involve regrouping in the tens.'

$$\begin{array}{r} 4 \ 1 \\ \times \quad 2 \\ \hline \end{array} \qquad \begin{array}{r} 4 \ 1 \\ \times \quad 4 \\ \hline \end{array} \qquad \begin{array}{r} 6 \ 1 \\ \times \quad 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \ 2 \\ \times \quad 2 \\ \hline \end{array} \qquad \begin{array}{r} 5 \ 2 \\ \times \quad 2 \\ \hline \end{array} \qquad \begin{array}{r} 6 \ 2 \\ \times \quad 2 \\ \hline \end{array}$$

'Fill in the missing digits.'

a $\begin{array}{r} 3 \ \square \\ \times \quad 7 \\ \hline 2 \ 4 \ 5 \end{array}$ **b** $\begin{array}{r} 3 \ \square \\ \times \quad \square \\ \hline 2 \ 2 \ 8 \end{array}$

c $\begin{array}{r} 7 \ \square \\ \times \quad 6 \\ \hline \square \square 4 \end{array}$ **d** $\begin{array}{r} \square \square \\ \times \quad 4 \\ \hline \square 8 \ 0 \end{array}$

'Decide whether each inequality is true or false.'

	True (✓) or false (✗)?
$6 \times 30 < 6 \times 35$	
$180 < 6 \times 35$	
$5 \times 32 < 200$	
$8 \times 49 > 400$	
$7 \times 75 > 490$	

'Jade and Hamid are doing this calculation:'

$$6 \times 20$$

'Whose method do you think is most efficient? Why?'

- Jade's method:

'I'll use short multiplication.'

$$\begin{array}{r} 2 \ 0 \\ \times \quad 6 \\ \hline 1 \ 2 \ 0 \end{array}$$

- Hamid's method:

'Six times two tens is twelve tens.'

$$120$$