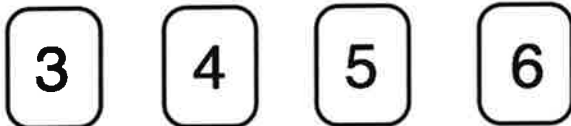




10th February

575 – 280

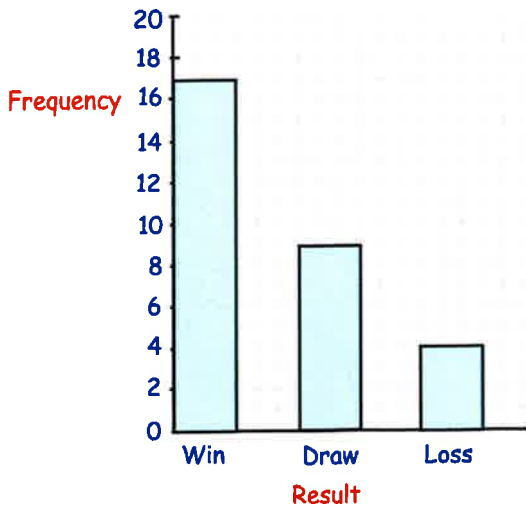
$$\begin{array}{r} 129 \\ \times \quad 7 \\ \hline \end{array}$$



Here are four digit cards

Make the largest possible three digit **odd** number

Winston has drawn a bar chart to show his football team's results.



A win is worth 3 points
 A draw is worth 1 point
 A loss is worth 0 points

How many points did the team receive in total?

For this week's spellings...

we are looking at plural possessive apostrophes with plural words.



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the girls' homework



the boys' spears



the babies' eyes



the parents' excitement



the teachers' meeting



the women's walking sticks



the men's robes



the children's instruments



the people's clothes



the mice's tails





Success Criteria	Me	Parent
I can begin with Dear Diary.		
I can write an opening sentence.		
I can write in clear paragraphs.		
I can write in first person.		
I can write in the past tense.		

Multiplication and division maze

$\times 100$	$\div 100$	$\times 10$
$\div 10$	$\times 10$	$\div 10$
$\div 10$	$\times 10$	$\div 10$

start 

 end

Group activity notes DAY 2

Find different routes through a maze ($\times 10$, $\div 10$, $\times 100$, $\div 100$) where the same number will come out exactly as it was entered.

Objectives: Multiply and divide by 10 and 100 using 1-place decimals.

You will need: Multiplication and division maze (see resources), calculators

Whole class investigation, pairs – independent or with TA or T *Working towards ARE /*

Working at ARE / Greater Depth

- Show a multiplication and division maze (see resources). Explain that a number enters the maze at the top left, travels through the maze (to adjacent squares, not diagonals) to the exit at the bottom right, being multiplied or divided by 10 or 100 as it does so.
- Ask a child to draw a route through the maze, then write 4.6 by the start. *Can you work with a partner to work out its end value?*
- Explain that children must work together in pairs to find different routes where the same number will come out exactly as it was entered.
- Sit with different groups and check their understanding of inverse operations, e.g. multiplying by 100 and dividing 100 but also, for example, that dividing by 10 twice 'undoes' multiplying by 100.
- Can children see a route which will multiply the number by 10 by the time it reaches the exit?
- Afterwards, ask pairs to share what they found out.

Outcomes:

- I can multiply and divide by 10 and 100 (whole answers or answers with 1 decimal place).

0.1 - 10 grid

0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2
2.1	2.2	2.3	2.4	2.5					

Digit dance

Focus of activity: Multiplying and dividing by 10 (including numbers and answers with one decimal place)

Working together: conceptual understanding

- Give each pair a 10s, 1s and 0.1s place value grid (see child instructions) and a set of 0 to 9 digit cards. Ask children to show the number 1 on their grid. Have they all put 1 in the 1s column? Ask children to multiply 1 by 10 and show the new number on their grids. *What happened to the 1?* Draw out that it moved one place to the left when they multiplied by 10, and they had to put a 0 card in the 1s column to show that there are no 1s.
- *Now we are going to divide 1 by 10. What is one tenth of a whole? One tenth. How do we write that?* Help children to show this on their grids, explaining that they don't have any whole numbers now, so they need to put a 0 in the 1s column but they do have one tenth, so they need to put 1 in the 0.1s column. *What happened to the 1 this time? When we divide by 10, digits shift one place to the right. If we don't have any whole parts of the number, we need to write a 0 in the 1s column.*
- Ask children to show 3 on their grids, then multiply by 10, showing the new answer. *Now divide 3 by 10. Which way do you need to move the digit 3? What is the digit 3 worth now?* Point out how children need a 0 to show that there are no 1s. Ask children to multiply 0.3 by 10. *We've got back to where we started!* Point out that we no longer need the 0. Record the multiplications and divisions: $3 \div 10 = 0.3$ and $0.3 \times 10 = 3$.
- Ask children to show 24 on their grids. *We're going to divide 24 by 10. Which way will the digits move?* Ask children to move them one place to the right. *What is the digit 2 worth now? And the 4?* Now ask children to multiply 2.4 by 10. Record the multiplications and divisions.
- Repeat for $53 \div 10$ and 5.3×10 . *What is the digit 5 worth now? And the 3?*

Up for a challenge?

I'm thinking of a number. I multiply it by 10. I get 25. What was my number? I think of a number. I divide it by 10. I get 3.1. What was my number?

Now it's the children's turn:

- Children take it in turns to shuffle a set of 1 to 9 digit cards. They take two and make a 2-digit whole number. They divide the number by 10, move the digit cards one place to the right and write the matching division sentence. They then write the multiplication which would give the original number, i.e. the digits move back to their original places, e.g. if they wrote $52 \div 10 = 5.2$, they would then write $5.2 \times 10 = 52$. How many pairs of number sentences can they write before time is up?
- Go round the group and mark their multiplications/divisions as they write them, e.g. initially after the first two examples of each. Ask children what each digit is worth.

S-t-r-e-t-c-h:

If children cope well, ask them to work out these mystery decimals: $\square.\square \times 10 = 45$, $\square.\square \times 10 = 6$.

Digit dance

Play in pairs

Things you will need:

- A place value grid
- 1 to 9 digit cards
- A pencil



What to do:

- Take it in turns to shuffle the 1 to 9 digit cards.
- Take two and make a 2-digit whole number.
- Put the number in your place value grid.
- Divide your number by 10.
Write the division sentence.
- Now work out what multiplication is needed to move the digits back to where they started. Write the multiplication.
- How many pairs of number sentences can you write before time is up?

⌋	
⌋	
⌋	$52 \div 10 = 5.2$
⌋	$5.2 \times 10 = 52$
⌋	
⌋	
⌋	
⌋	

S-t-r-e-t-c-h:

Work out these mystery decimals.

$$\square.\square \times 10 = 45 \quad \square.\square \times 10 = 6$$

Learning outcomes:

- I can divide whole numbers by 10 to give numbers with one decimal place understanding which way digits will move.
- I can multiply numbers with one decimal place by 10.
- I am beginning to write multiplications which are the inverses of divisions.

Digit dance

10s	1s	0.1s