Activity 1 - Recognise the place value of each digit in a four-digit number.

Represent these numbers by drawing place value counters or a part whole model	**What is the value of the underlined digits?** *You can draw representations to support you if you need to.*
1. 7184 2. 3267 3. 5490 4. 6032 5. 6478 6. Three thousand, four hundred and eighty-four. 7. Six thousand, two hundred and five. 8. One thousand and ninety-one. 9. Seven thousand, eight hundred and forty. 10. Five thousand and four.	1. 4<u>8</u>31 2. 592<u>3</u> 3. <u>6</u>370 4. 200<u>1</u> 5. <u>1</u>840 6. 57<u>2</u>8 7. 9<u>8</u>23 8. 710<u>9</u> 9. <u>3</u>781 10. 64<u>8</u>9

CHALLENGE - What is the number? **All of the numbers have four digits**

- The thousands digit is the number of days in a week. - The ones digit is half of 12. - The tens digit is the number of wheels on a bicycle. - The hundreds digit is 2 less than the ones digit	- The ones digit is an odd number less than 3. - The tens digit is the same as 5 + 3. - The hundreds digit is a multiple of 3 less than 6. - The thousands digit is the first number you would dial when calling an ambulance.
- The hundreds digit is the number of sides of a pentagon. - The thousands digit is the same as 20 ÷ 5. - The tens digit is more than 0 but less than 2. - The ones digit is the same as 20 - 17.	- It is smaller than 6000 but bigger than 5000. - The hundreds digit is smaller than 6 but bigger than 4. - The tens digit is an odd number smaller than 7 but bigger than 3. - The ones digit is in the 3 times table and is bigger than 6 but smaller than 10.

Want even more practice? Write some riddles of your own 😊

Activity 2 - Order and compare numbers beyond 1000

Step 1 - Make 4 comparisons of the numbers below.
Step 2 - Order them in ascending order.
Step 3 - Order them in descending order.

1. 2476, 2764, 2467
2. 8567, 8576, 8756
3. 6912, 6921, 6129, 6192
4. 7340, 7034, 7304, 7043
5. 4510, 4105, 4501, 4510
6. 7623, 7632, 7326, 7236, 7263
7. 9015, 9105, 9501, 9015, 9150, 9051

Write a single-digit number in each box.

Use these numbers to complete the table

What is the...	
largest four-digit number you can make?	
smallest four-digit number you can make?	
largest odd four-digit number?	
smallest odd four-digit number?	
largest even four-digit number?	
smallest even four-digit number?	

CHALLENGE

Write a single-digit number in each box.

1. Create three four-digit numbers and write them in ascending order.
2. Create four different four-digit numbers and write them in descending order.

Want to challenge yourself further? Find all of the four-digit numbers you can make? Write these in ascending and descending order?

Activity 3 -Decimals

Which numbers are represented below?

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
OOOOO	OO	OOOO	O	OOOOOO	OO

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
OOOOO	OOOOOO	O		OOOOOOO	OOO

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
OO	O		OOOOO	OO	OOOO

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
OOOOOOO	OOOO	OOO	OO	OOOOOO	OO

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
O	OOO	O	OOO		OOOOO

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
OOOOOOO	OOOOOOO	OOO	O	OOOOO	OOOO

Step 1 - Make 4 comparisons of the numbers below. - Draw a representation if you need to
Step 2 - Order them in ascending order.
Step 3 - Order them in descending order.

1. 5.67 4.32 1.09 3.87
2. 43.65 67.21 49.32 48.76
3. 135.68 189.9 109.05 143.65
4. 6482.54 6347.86 6467.21 6389.06
5. 4.32 4.23 3.24 2.43
6. 67.54 67.45 76.45 46.75
7. 876.23 867.32 876.32 867.23
8. 1987.54 1978.54 1987.54 1954.78

CHALLENGE - Using only the digits below, write four different numbers with one or two decimals places then put them in ascending and descending order.

0	5	3	4	5	3	3	6

Want more practise? Keep creating numbers and ordering them.

Activity 4 – Rounding to the nearest 10, 100 or 1000

Round the numbers to the nearest 10, 100 and 1000. You could draw a number line diagram like the one below to help you

1. 4321
2. 7483
3. 8201
4. 4821
5. 8375
6. 2839
7. 2195
8. 1573
9. 5728
10. 9123

What number could I be thinking of?

1. I am thinking of a four-digit number then I round it to the nearest 10. My answer is 3460. What could my number have been? Can you find at least 3 answers?
2. I am thinking of a four-digit number then I round it to the nearest 1000. My answer is 9000. What could my number have been? Can you find at least 3 answers?
3. I am thinking of a four-digit number then I round it to the nearest 100. My answer is 5700. What could my number have been? Can you find at least 3 answers?

Want more practise? Write some 'What number could I be thinking of' puzzles of your own to solve.

Solve the word problems

1. A family travels 225 miles in a car.
   How far do they travel to the nearest 10 and nearest 100 miles?
2. A delivery driver travels 375 miles **each day**.
   How far will the driver travel in **5 days**, to the nearest 10, 100 and 1000 miles?
3. An ice cream van sells 334 lollies and 127 cones in a day.
   How many lollies and cones were sold altogether in a week, to the nearest 10, 100 and 1000?

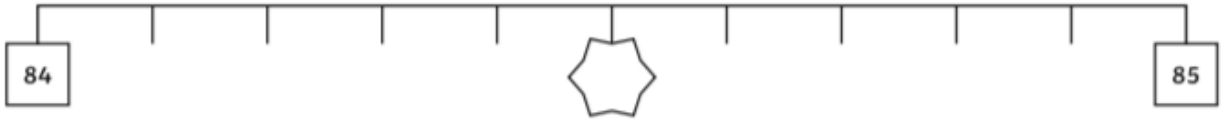
Activity 5 – Rounding decimals with one decimal place to the nearest whole number

Use the diagrams to help you round the numbers

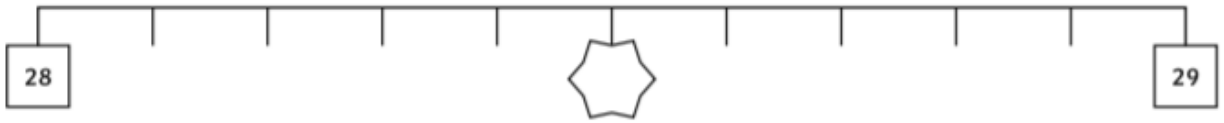
1. 13.6 rounded to the nearest whole number is...

2. 57.2 rounded to the nearest whole number is...

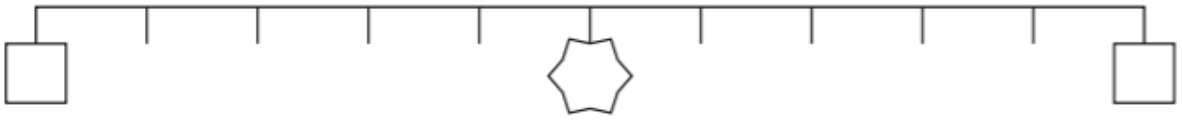
3. 84.4 rounded to the nearest whole number is...



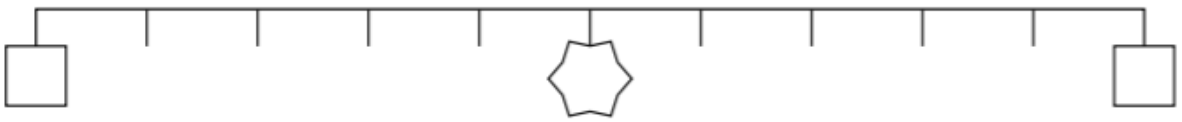
4. 28.1 rounded to the nearest whole number is...



5. 50.9 rounded to the nearest whole number is...



6. 99.7 rounded to the nearest whole number is...



Round these numbers to the nearest whole number

1) 45.3 2) 67.4 3) 95.7 4)35.7 5)64.7 6)39.9

CHALLENGE 1

Miss Took is thinking of a number with one decimal place that has been rounded to 32.

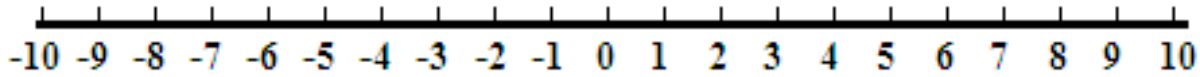
1. Think of 3 numbers Miss Took could have been thinking of

CHALLENGE 2

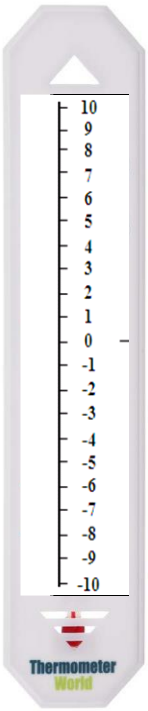
Miss Walker is thinking of a number with one decimal place that has been rounded to 25.

1. What is the smallest number that Miss Took can be thinking of?
2. What is the largest number that Miss Took can be thinking of?

Activity 6 – Negative Numbers



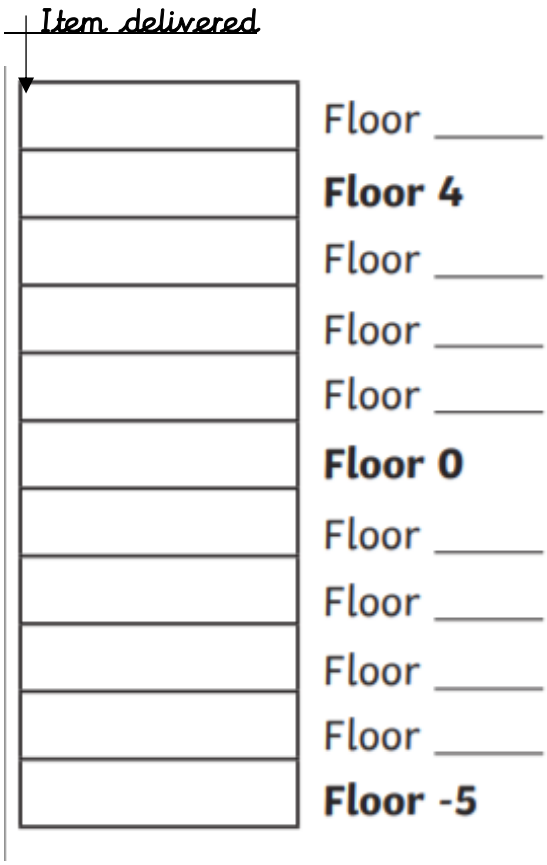
1. What is one more than -3?
2. What is one less than -8?
3. What is one more than -5?
4. What is one less than 0?
5. What is one more than -2?
6. What is one less than -7?
7. What is one more than -10?



1. The temperature is -9°. If the temperature got 7° warmer what would the temperature be?
2. The temperature is -5°. If the temperature got 8° warmer what would the temperature be?
3. The temperature is -3°. If the temperature got 4° cooler what would the temperature be?
4. The temperature is -1°. If the temperature got 6° cooler what would the temperature be?
5. The temperature is -8°. If the temperature got 12° warmer what would the temperature be?
6. The temperature is 5°. If the temperature got 12° cooler what would the temperature be?

CHALLENGE

Dennis is delivering parcels. Follow the instructions below to find out which parcels he delivers to which floor. Label to missing floors and the parcel that has been delivered. (If you can print you can write the floors and items delivered on a piece of paper.



1. He starts on the ground floor (0) and his first delivery is a cake on floor 2.
2. He then goes 4 floors down to deliver a book.
3. Dennis has to go down another two floors next to deliver a hat.
4. One that parcel is delivered, he travels up 9 floors to deliver a CD.
5. After that, Dennis goes down to the basement level -1 to deliver a lamp. How many floors has he travelled to get there? _____
6. Up he goes again. This time 4 floors to deliver some paint.
7. Dennis has done his last delivery. How many floors must he travel to get back to the ground floor (0)?
8. Which floors has Dennis not delivered to?
9. Dennis finds another parcel in his bag. It does not have a floor number on it but it does give him a clue. It says 'Deliver me to the floor with the largest number'. Which floor does Dennis need to go to? Explain how you know.

Activity 7 – Addition

1) 6530 + 6472 =
2) 1749 + 2918 =
3) 4792 + 673 =
4) 938 + 3892 =
5) 7382 + 6209 =
6) 1749 + 2981 =
7) 3781 + 1392 =
8) 378 + 4801 =
9) 3910 + 3754 =
10) 2839 + 8979 =

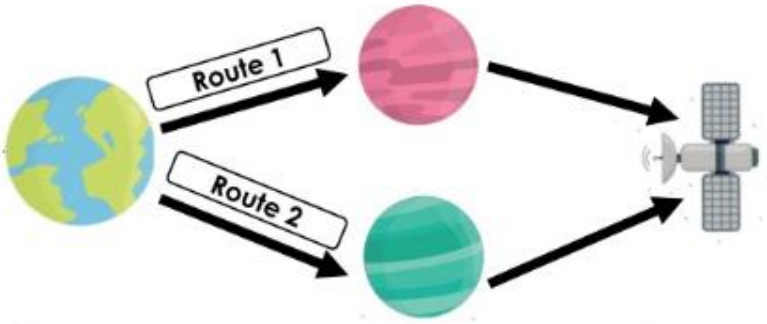
Use <, > or = to make the statements correct.

7492 + 5800 =		4792 + 4893 =
3709 + 3719 =		3810 + 5673 =
3876 + 9866 =		2987 + 9287 =
9108 + 5692 =		2917 + 3691 =
2976 + 9409 =		3561 + 2738 =
3865 + 8902		3816 + 7365 =

Challenge

Work out the shortest route the astronauts need to take in order to reach Space Station Z to refuel.

Route 1
Earth to Mars = 3,454 miles
Mars to Space Station Z = 2,474 miles



Route 2
Earth to Jupiter = 2,456 miles
Jupiter to Space Station Z = 3,374 miles

Route 1 = _____ miles

Route 2 = _____ miles

The shortest route to take is Route: _____

Activity 8 - Subtraction

1) 6718 -4214 =
2) 9027 - 1346 =
3) 8056 - 2342 =
4) 7830 - 3214 =
5) 8076 - 5764 =
6) 8751 - 4317 =
7) 9090 - 1987 =
8) 8042 - 6475 =
9) 9078 - 4783 =
10) 6708 - 4376 =

Challenge 1

Miss Took shows 3/4T a column subtraction that has some missing digits. She explains,

- Each empty square must contain a different digit.
- The answer is more than 1,200 but less than 1,500.
- The answer has an even digit sum.
- Must include 2 exchanges or more.

Find all of the missing digits to complete the calculation. Is there more than one possible answer?

Challenge 2

On sports day, Jess and Simon ran 5,824m altogether. Simon ran more than 3,500m but less than 3,700m. Use column subtraction to explore which distances Simon and Jess could have run. Find and match four combinations of distances for both children.

Jess

Simon

2,316m	3,617m	3,672m	2,305m	3,519m	2,207m	3,508m	2,152m

Activity 9 – Multiplying 3 numbers

1. 2 x 3 x 4 =
2. 3 x 5 x 2 =
3. 2 x 0 x 5 =
4. 5 x 3 x 4 =
5. 10 x 2 x 4 =
6. 4 x 1 x 5 =
7. 5 x 5 x 2 =
8. 2 x 5 x 3 =
9. 4 x 5 x 2 =
10. 3 x 10 x 0 =

CHALLENGE

Read this really carefully

A rollercoaster at the theme park runs **between two and five times each day** depending on how busy the theme park is.

There are **five carriages** on the rollercoaster.

Each carriage can hold between **two and four people**.

Investigate the different number of people that can use the rollercoaster each day.

What is the fewest number of people that can ride the rollercoaster?

What is the greatest number of people?

Activity 10

For each set of three number write the four calculations and draw an image to represent these calculations.

1. 2, 6 and 2
2. 4, 10 and 40
3. 5, 2 and 10
4. 5, 15 and 3
5. 4, 20 and 5
6. 40, 5 and 8
7. 27, 9 and 3
8. 9, 32 and 4
9. 10, 90 and 9
10. 45, 9 and 5

CHALLENGE - Find the missing number and then write the 4 calculations

1. 4 x ___ = 8
2. ___ x 5 = 15
3. ___ x ___ = 20
4. 24 ÷ ___ = 6
5. ___ ÷ 10 = 5