

**Roll a dice 7 times and record the digits.**

**If you arrange the digits in ascending order, you will create the smallest number possible.**

**Is this correct? Prove it!**

**Using the digits 0 to 9, can you make the numbers requested? You may use each digit only once!**

**Largest even number**

**Largest odd number**

**Largest multiple of 5**

**In a shop, there are 100 different types of sweets, and 100 bags of each type of sweet. Each bag contains 10 mini packets and each mini packet contains 10 sweets.**

**If a child had one mini packet from one bag of sweets, an entire bag of a different type and then 10 bags of his favourite type of sweet, how many sweets did the child have? How many would be left?**

**I am thinking of a number.**

**It has 5 digits.**

**It is less than 80,000 but more than 70,000.**

**The hundreds digit is larger than the thousands but smaller than 5.**

**The thousands digit is 2.**

**The tens digit is an odd number and is in the 3 times table.**

**The ones digit is the same as the hundreds.**

**The hundreds and the tens digit are not the same.**

**What is my number? Is there more than one option?**

Create your own “I am thinking of a number...” question for your partner to solve.

Create your own place value reasoning problem for your partner to solve.

Complete the statements so they are true.

$3,47\_,098 > 3,\_79,098$

$9,\_23,582 < 9,713,145$

Is there more than one option?

The more digits a number has, the higher its value.

Is this true? Prove it!

A bumper box of stickers costs £25.50.

There are 150 sheets of stickers in the box and each sheet has 15 stickers.

What is the cost of one sticker to the nearest penny?

Sophie and Ethan start with the same number.

Sophie rounds it to the nearest hundred and Ethan rounds the number to the nearest ten.

Sophie's answer is double Ethan's answer. Explain how this can be.

Roll a dice 7 times to make a 7 digit number.  
Now round your number to the nearest:

- 10
- 100
- 1,000
- 10,000
- 100,000
- 1,000,000

Roll again to make a different 7 digit number.  
Which is the biggest number?  
What is the difference between your two numbers?

An archaeologist was measuring the depth of some buried artefacts. She recorded her measurements using negative numbers.

Object	Depth
Necklace	-1m
Coins	-9m
Sword	Three times as deep as the necklace
Desert beetle	5m above the coins

Which object is the deepest? Explain your choice.

Is the desert beetle deeper than the sword? Prove it!

A camel stands on a hill 2m above the sand. How far apart are the camel and the coins?

Create your own “I am thinking of a number...” question for your partner to solve. It must be related to negative numbers or rounding numbers

Create your own rounding or negative number reasoning problem for your partner to solve. Make it challenging!

Put these statements in order so the answers are from largest to smallest:


The difference between -36 and -89


The odd number that is less than -27 but greater than -31

The number which is halfway between 30 and -40

The difference between -11 and 11

The difference between -4 and -8 = 

The number halfway between -2 and 4 = 

$-4 + 7 =$  

Work out  x  x  =