**Investigating odd numbers**

1 3 5 7 9

Chose any pair of odd numbers to add. Try a few examples. What do you notice?

Now chose 3 odd numbers to add. Try a few examples. What do you notice?

What about adding 4 odd numbers together. What do you notice?

Have you noticed a pattern? Can you predict what might happen if you added 5 odd numbers?

**Reasoning about Numbers**

For each sum chose an answer that could reasonably be correct.

You must explain why you chose that number.

1. 19 x 5 = 84 95 93
2. 19 x 2 = 35 33 38
3. 19 x 10 = 190 185 192
4. 28 + 38 = 63 66 70
5. 47 + 45= 90 95 92

Are these statements **always true**, **sometimes true** or **never true**?

If 2 even numbers are added together the total is an even number.

If 2 odd numbers are added to an even number the total is an odd number.

If 3 even numbers are added together the total is an even number.

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Are these statements **always true**, **sometimes true** or **never true**?

If an even number is halved get an odd number.

If an odd number is subtracted from an even number you get an even number.

If two even numbers are added to an odd number the total is an even number.

If an odd number is multiplied by an odd number you get an even number.

**Socks, socks and more socks! **

5 pairs of socks = \_\_\_\_\_\_ altogether.

6 pairs of socks = \_\_\_\_\_\_ altogether.

If I have 11 socks how many pairs of socks would I have?

9 pairs of socks = \_\_\_\_\_\_ altogether.

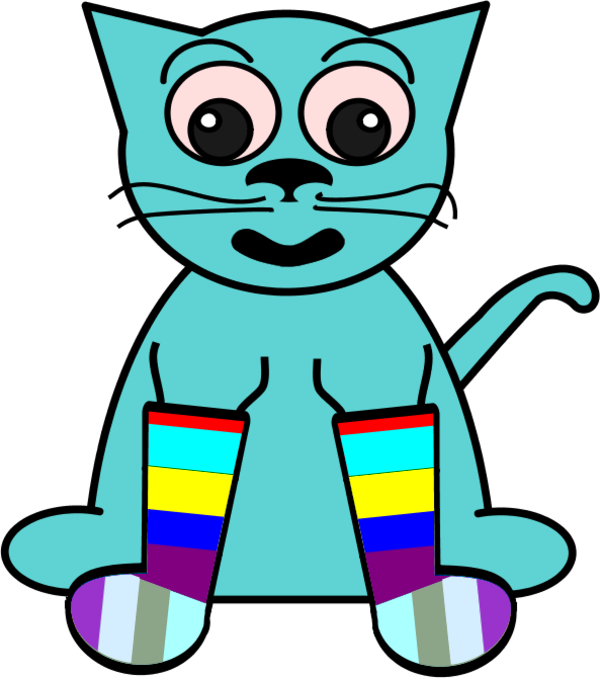
10 pairs of socks = \_\_\_\_\_\_ altogether.

If I have 19 socks how many pairs of socks would I have?

6 pairs of socks = \_\_\_\_\_\_ altogether.

7 pairs of socks = \_\_\_\_\_\_ altogether.

If I have 13 socks how many pairs of socks would I have?



**Problem Solving with halves and quarters.**

1. I have 24 sweets in a bag. I share them with my friend. How many do we get each?
2. Tom has 30 marbles. He loses half of them in a game. How many does he have left?
3. Dad made 28 buns. He put half of them away in a tin. How many buns are left?
4. 20 children went to a party. One quarter of them don’t like pizza? How many children is that? So how many children **DO** like pizza?
5. There were 40 chocolates in a box. We ate one quarter of them. How many are left now?
6. There are 32 balloons in a packet. We blew up half of them. How many is that?
7. Mum bought 12 apples. When she got home she found that a quarter of them were bad. How many good apples were there?
8. There are 24 footballs in one basket. One quarter of them are flat. How many are ready to use?
9. 16 cars are in a car park. ¼ of them are red. How many cars are not red?
10. There are 40 children in Class 2. One quarter of them wear glasses. How many children don’t wear glasses?

Now try this:

Mum buys some pizzas for my party and cuts each one into quarters.

If she buys 6 pizzas; how many pieces is that?

If there are 8 children at the party; how many pieces do they get each?

Now try this:

You need 32 apples for a school trip. Mrs Smith has already bought 6 bags

of 5 apples. How many more apples do you need?

**Problem Solving.**

L.O. I can solve problems.

I have £1.00 to spend. I buy a mix of ice-creams **10p** ; lollies **5p** and ice pops **2p**.

Show **3** different ways ofspending exactly £1.00.

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Now try this:

My Nan gave me £5 for the sweet shop. I bought 3 bags of sweets for

60p each and 2 lollies for 20p each.

How much will it cost me in total?

How much change will I get back?

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L.O. I can use my knowledge about addition, subtraction, multiplication and division to write calculations for arrays.

**Use the amounts 18, 20 and 24. What arrays can you make?**

**Can you write any calculation sentences to go with the arrays?**

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**L.O. I can calculate and compare fractions.**

Read each statement carefully.

Show your working out each time and then ring the correct answer.

1. Which is greater ...... ½ of 16 or ¼ of 20 ?
2. Which is longer ...... ¼ of 1 metre or ½ of 60 cm?
3. Who has more ..... Tom has ½ of £10 and Ben has a ¼ of £24 ?
4. Which is shorter ...... ½ of 30 cms or ¼ of 60 cms ?

Now try this:

1. Which is greater ....... ½ of 100 or ¾ of 80 ?