



INVESTIGATION



Coins



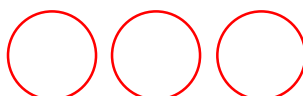
MathSphere

Investigate coins

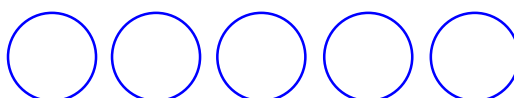
Starter

Which coins can I use?

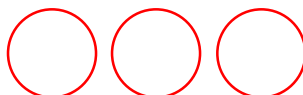
I spend 8p using 3 coins.



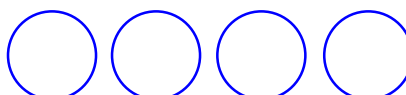
I spend 8p using 5 coins.



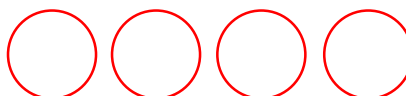
I spend 25p using 3 coins.



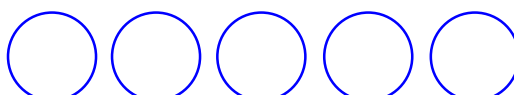
I spend 25p using 4 coins.



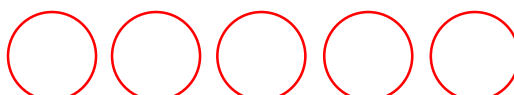
I spend 45p using 4 coins.



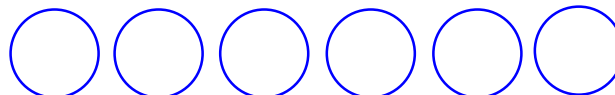
I spend 45p using 5 coins.



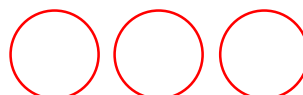
I spend 50p using 5 coins.



I spend 50p using 6 coins.



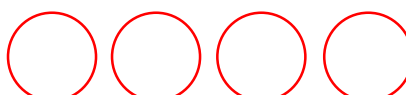
I spend 80p using 3 coins.



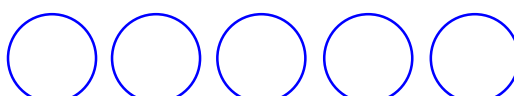
I spend 80p using 4 coins.



I spend £1 using 4 coins.



I spend £1 using 5 coins.



Investigate coins

Some ideas

You may have noticed that you can make up the same amount by using a different number of coins.

But, what are the least number of coins that you can make these amounts with:

1. 5p
2. 7p
3. 11p
4. 17p

Investigate.

Can you find the least number of coins for each amount up to 20p?

Which amounts only need 1 coin?

Which amounts only need 2 coins?

Think how you can set your results out clearly so that they are easy to understand.

Investigate coins

Answer guide 1

The initial task of finding coins to make up amounts is a good way to introduce this investigation with a whole class. By working together children will find more than one way to answer these.

Discuss amounts which can only be found one way and those which can be found more than one way.

This can then lead to a more systematic search for the least number of coins needed to make each amount from 1p up to 20p or even further.

Encourage setting out results in a clear way. This can be done in a table, or drawings of the coins.

Make sure that you have plenty of card or plastic coins available.

Extension:

Some children may like to go further and look at amounts which involve using £1 or £2 coins.

Which coins can I use?

I spend 8p using 3 coins.	5 2 1
I spend 8p using 5 coins.	2 2 2 1 1
I spend 25p using 3 coins.	10 10 5
I spend 25p using 4 coins.	20 2 2 1
I spend 45p using 4 coins.	20 10 10 5
I spend 45p using 5 coins.	10 10 10 10 5
I spend 50p using 5 coins.	20 10 10 5 5
I spend 50p using 6 coins.	20 20 5 2 2 1
I spend 80p using 3 coins.	50 20 10
I spend 80p using 4 coins.	20 20 20 20
I spend £1 using 4 coins.	50 20 20 10
I spend £1 using 5 coins.	50 20 20 5 5