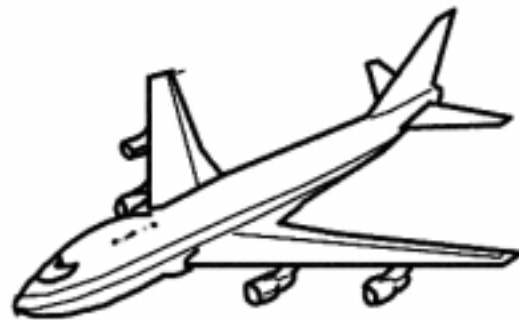




INVESTIGATION



£6 model



MathSphere

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£6 Model Investigation

Starter



SALE
Model aeroplane
£6

I bought this model aeroplane
for £6.

I paid for it exactly, with no
change.

I only had £1 coins, £2 coins
and £5 notes to pay with.



There are 5 different ways to pay for the aeroplane.

Can you work them all out?

Write down all the answers.

Some Ideas

Work in a methodical way, recording your results carefully as you go.

Make a table of your results.

Think about the best way to set them out.

What would happen if the plane cost £7?

What would happen if the plane cost £10?

What would happen if he could have paid with 50p pieces as well as the other coins?

Try to find as many rules and patterns as you can.

Answer Guide

Here are some possible answers and notes for guidance.

This is a good investigation to carry out when children are becoming familiar with the larger coins. It is a good idea to have a collection of plastic coins and toy notes to help with this.

The initial investigation only has 5 answers so is excellent for checking whether all combinations have been written down.

The five different ways are:

$$£1 + £1 + £1 + £1 + £1 + £1$$

$$£2 + £1 + £1 + £1 + £1$$

$$£2 + £2 + £1 + £1$$

$$£2 + £2 + £2$$

$$£5 + £1$$

and for £7, the combinations are:

$$£1 + £1 + £1 + £1 + £1 + £1 + £1$$

$$£2 + £1 + £1 + £1 + £1 + £1$$

$$£2 + £2 + £1 + £1 + £1$$

$$£2 + £2 + £2 + £1$$

$$£5 + £1 + £1$$

$$£5 + £2$$

Once again several extension opportunities are available, such as:

Changing the amount

Changing the type of coins/notes used.