

## Positive and negative numbers

### Making money add up: Positive and negative numbers

No, Mrs Bradley, I can easily check if we haven't gone overdrawn.

We did this in school, it was a cinch!

Oh no. Me? Complete an accounts review!

This is the worst work experience ever!

OK, calm down.

(RADIO PLAYS)

That's better.

Now, tea.

So this is about money coming in and money going out, since last month.

That's positive and negative numbers.

So first, let's see what's been paid into the bank.

Here are the paying in slips.

Now this can be Polly positive. Anything above zero is positive.

So I'll stick the paying in slips on Polly.

This can be Nigella negative.

So I'll stick all the receipts and money going out on Nigella.

Let's imagine a line with a zero in the middle.

Everything you add on, adds to the right.

She told me that we started with a balance of £230 in the bank.

So that's 230 positive.

So the paying in slips we'll add on to the right.

Starting at 230 plus 1250.21 - that's the takings from the first week of the month.

# Bitesize

1480.21.

So let's imagine that on my positive and negative line.

230 plus 1250.21 comes to 1480.21.

So I'll just add up the remaining paying in slips and then add on to the right.

That was quick.

So the additional pay slips adding to the right comes to a total of 6313.41.

Now for the money going out.

I need all the receipts we've kept.

That will be negatives, subtracting.

While everything I add on, adds to the right.

Everything I subtract, subtracts to the left.

6313.41 minus £2600, that's rent, minus £3000.20 that's wages and then minus £840.09 for new hairdryers.

Woah. It's gone negative?

OK that's because I crossed the 0 line.

Let's get my head round it.

Subtracting rent and wages brought us down to £713.21, then I took a further £840.09 away for the hairdryers.

The first £713.21 took me down to zero and the remainder took us down 126.88 to -126.88.

Oh no, we've still got one more payment to take out for the new chairs.

Oh dear, put it on Nigella.

So taking away another 721.50 equals -848.38.

So the -721.50 took us even further down to -848.38.

You can get to that figure by adding 126.88 and 721.50.

Wow, we're bankrupt!

(PHONE RINGS)

# Bitesize

Mrs. Bradley. Thank goodness!

What?

Refunds for the equipment we sent back?

So that's money coming in in fact?

I'll add in the five refunds.

Bye!

So let's get my head round this.

Five payments of £240 were made last month that shouldn't have been made.

I'm taking away these five lots of negatives. So I'm taking away five times the -240 and that's going to add money in!

Oh I remember this.

A negative times a negative is a positive!

That's what they said at school. In other words you can say.

When multiplying two signs that are the same, the answer is always positive.

Let's check it.

$$5 \times 240 = 1200.$$

$$-5 \times -240 = 1200 \text{ as well, isn't that clever!}$$

Let's get back to the line.

Starting at -848.38 we're adding on 1200.

Well the first 848.38 takes us to zero.

We just have to work out the difference between 848.38 and 1200.

So we can find out how much to add on beyond zero.

Which is 1200 minus 848.38... equals 351.62.

There it is.

In the bank we have a credit of £351.62.

# Bitesize

We're rich!

Well I would be if she paid me anything.