

## Fractions

### Converting fractions: The great pizza party

Billy                      Oh no. I'm starving.

(DOOR BELL)

Hey guys, the pizza's here!

Yeah, coming, coming...

Hi there, is it all paid for?

Delivery Man            Yeah, It's already been paid online.

Billy                      OK. Where's the third one?

Delivery Man            There was only two in the order.

Billy                      Oh no. Thank you  
  
Oh no.... how on earth am I going to split this into nine?  
  
One thing they always go on about at school is pizzas,  
fractions and percentages.  
  
If I can't work this out...

Friends                   Pizza, Pizza, Pizza!

Billy                      Coming! I'm just cutting it up now.

Right, you can do this.

I have to share two pizzas between nine people.

That's two divided by nine. I think I'll get my calculator for this.

Now, let's take this nice and slowly.

Well to convert a fraction to a decimal

I need to divide the numerator by the denominator.

So the fraction is two ninths. What's two divided by nine?

Two divided by nine equals naught point two, two, two, two, two.

That's a recurring decimal.

Now to convert a decimal to a percentage you multiply the decimal by 100.

So  $\times 100$  equals 22.22222222%

But how does that help me cut up pizzas?

Hang on, if I just stick to fractions.

I need two ninths of two pizzas.

That's one ninth of each pizza.

Hey that's so cool.

Nine. That's easy. That's divisible by three.

Cut them into thirds.

Then cut each third into three, that's great.

Here we go guys - it's two pieces each!

Wow that's a disaster.

Having shown off about how good I was at fractions, they've now all challenged me to work out what percentage of the bill they all have to pay.

So without Kevin the birthday boy, there's eight of us.

That's an 8th each and to get the decimal divide the numerator by the denominator.

That's one divided by eight.

To go to a percentage you multiply by 100.

Let's just work it out.

I'm so good at this.

Oh no!

Mum, I need your lipstick.

So what's the simplest way of doing this.

So from an eighth as a fraction to a percentage is one divided by eight, times 100, the same as 100 divided by eight.

So, eight into 100. Eight goes into 10 once, with two left over so I carry that to the units.

Eight goes into 20 twice, and there's four left over and I need to carry that to the first decimal place.

Eight into 40 is exactly five.

So I can see that an  $\frac{1}{8}$ th is the same as 12.5%.

What's 12.5% of the bill which was £28.

I can use my phone, why didn't I think of that.

Now I don't know what this percentage button does but I know that if I'm changing a percentage to a fraction or a decimal then I need to divide by 100.

So 12.5% is the same as 12.5 divided by 100, which is 0.125.

So that's 0.125 multiplied by 28.

That's £3.50.

So eight of us pays £3.50 each.

Now, where am I going to find some change!