
TRANS
FORMERS

Optimus Prime

... From a robot into a truck and from a truck into a robot ...

BUT IT'S STILL THE SAME GUY!!!

Bumblebee

... From a robot into a car and from a car into a robot ...

BUT IT'S STILL THE SAME GUY!!!

Ironhide

... From a robot into a pickup and from a pickup into a robot ...

BUT IT'S STILL THE SAME GUY!!!

$\frac{3}{8}$

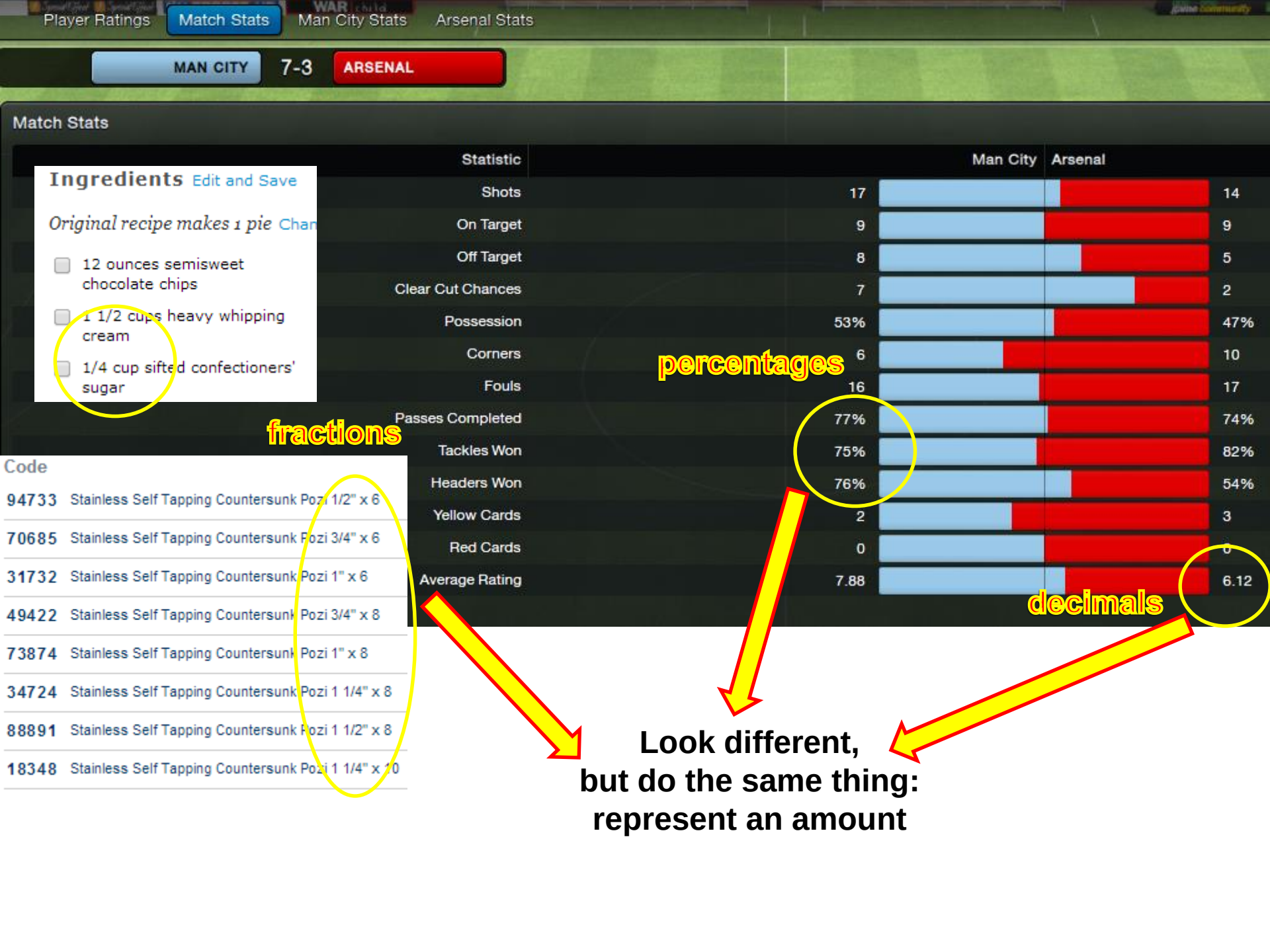
0.375

37.5%

... From a fraction into a decimal and from a decimal into a percentage ...

BUT IT'S STILL THE SAME ~~GUY~~!!!

~~amount~~ of pizza


Player Ratings
Match Stats
Man City Stats
Arsenal Stats
MAN CITY
7-3
ARSENAL
Match Stats
Statistic
Man City
Arsenal
Shots 17 14
On Target 9 9
Off Target 8 5
Clear Cut Chances 7 2
Possession 53% 47%
Corners 6 10
Fouls 16 17
Passes Completed 77% 74%
Tackles Won 75% 82%
Headers Won 76% 54%
Yellow Cards 2 3
Red Cards 0
Average Rating 7.88 6.12
Ingredients Edit and Save
Original recipe makes 1 pie
12 ounces semisweet chocolate chips
1 1/2 cups heavy whipping cream
1/4 cup sifted confectioners' sugar
fractions
percentages
decimals
Code
94733 Stainless Self Tapping Countersunk Pozi 1/2" x 6
70685 Stainless Self Tapping Countersunk Pozi 3/4" x 6
31732 Stainless Self Tapping Countersunk Pozi 1" x 6
49422 Stainless Self Tapping Countersunk Pozi 3/4" x 8
73874 Stainless Self Tapping Countersunk Pozi 1" x 8
34724 Stainless Self Tapping Countersunk Pozi 1 1/4" x 8
88891 Stainless Self Tapping Countersunk Pozi 1 1/2" x 8
18348 Stainless Self Tapping Countersunk Pozi 1 1/4" x 10
Look different,
but do the same thing:
represent an amount

Whoa!
Stop right there!
If they do the same thing,
why do we need them all?
Surely just **one of them** would do...

How many shoes do you have?

They do the same thing (protect your feet).
Surely only one pair would do...?

Sometimes
you can use any of these –
whichever you like the best.
Sometimes
one of them is not appropriate,
while another one is spot on!

$\frac{2}{5}$

0.4

40%

I like the blond one at the top right... Cute...

... And that is why we need to know
how to transform from
one shape to another...

Fractions into decimals

$\frac{3}{4}$ ← This line has the same meaning as the sign ÷

So:

$$\frac{3}{4} = 3 \div 4 = 4\overline{)3} = 0.75$$

$$0.75$$
$$4\overline{)3}$$
$$30$$
$$20$$

To change a fraction into a decimal, we simply divide its numerator (top) by its denominator (bottom)

Well, that was easy... When I need to change, I have to take off my right hand, then to bend my elbow behind my back, then to put my left arm through my stomach, my feet behind my neck...
you **really** don't want to know where I have to put my head...

Anyway, it's your turn...
Change the fractions below into decimals.
If it seems too difficult, take off your right hand, bend your elbow behind your back, put your left arm through your stomach, cross your feet behind your neck.....

$\frac{3}{4}$ $\frac{4}{5}$ $\frac{9}{10}$

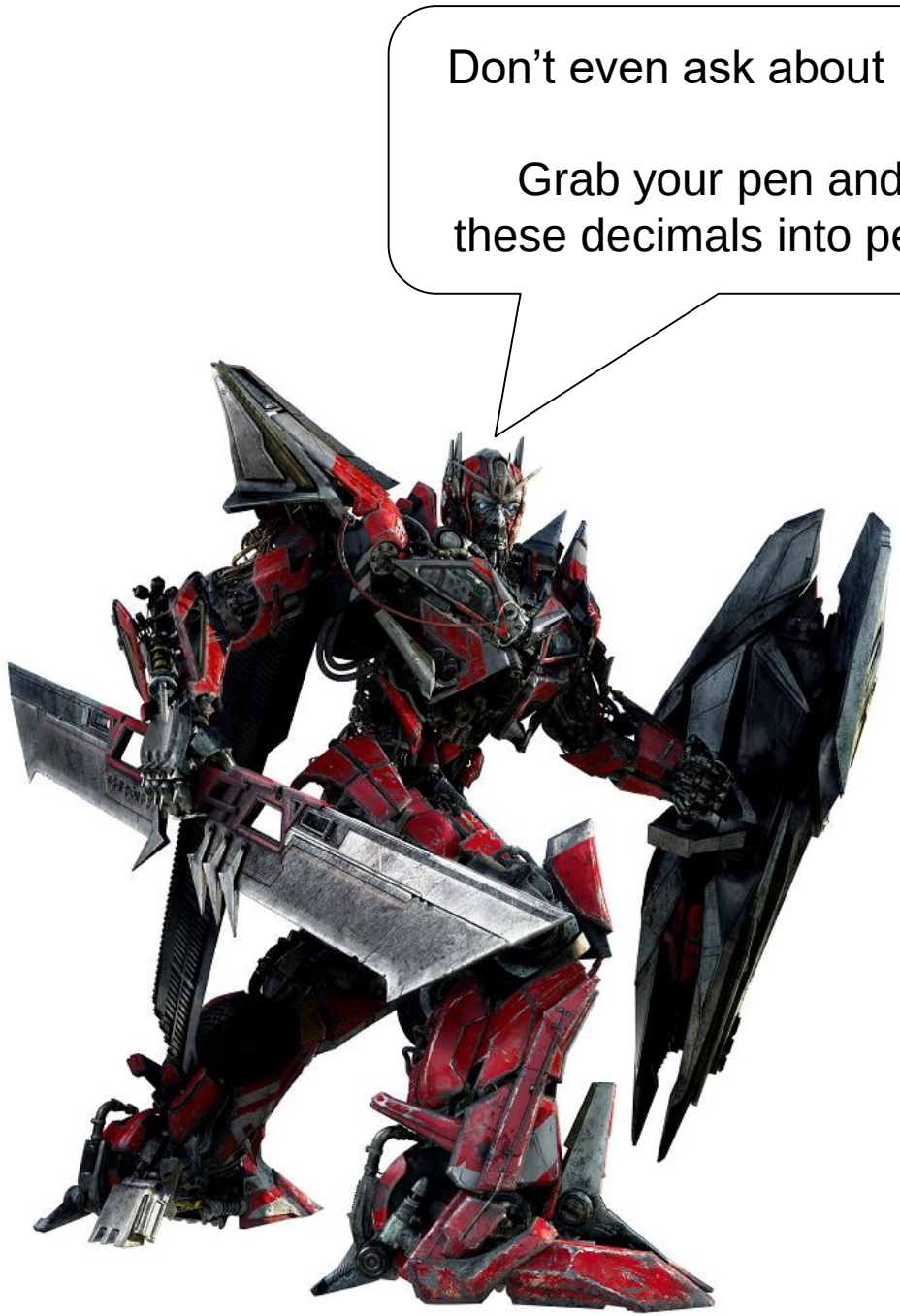
$\frac{5}{8}$ $\frac{2}{3}$ $\frac{6}{7}$

Decimals into percentages

$$0.75 \times 100\% = 0.75 = 75.0\% = 75\%$$

Remember multiplying with 100?
Two zeros in 100 means two “jumps to the right”...

To change a decimal into a percentage, we simply multiply it by 100%.



0.82

0.33

0.105

0.02

0.001

0.7

Percentages into decimals

75% ÷ 100% = 75. = 0.75

Remember dividing with 100?
Two zeros in 100 means two “jumps to the left”...

To change a percentage into a decimal, we simply divide it by 100%.

Well, that was another easy one, as long as we know how to divide by 100...

To make sure, do the ones below now

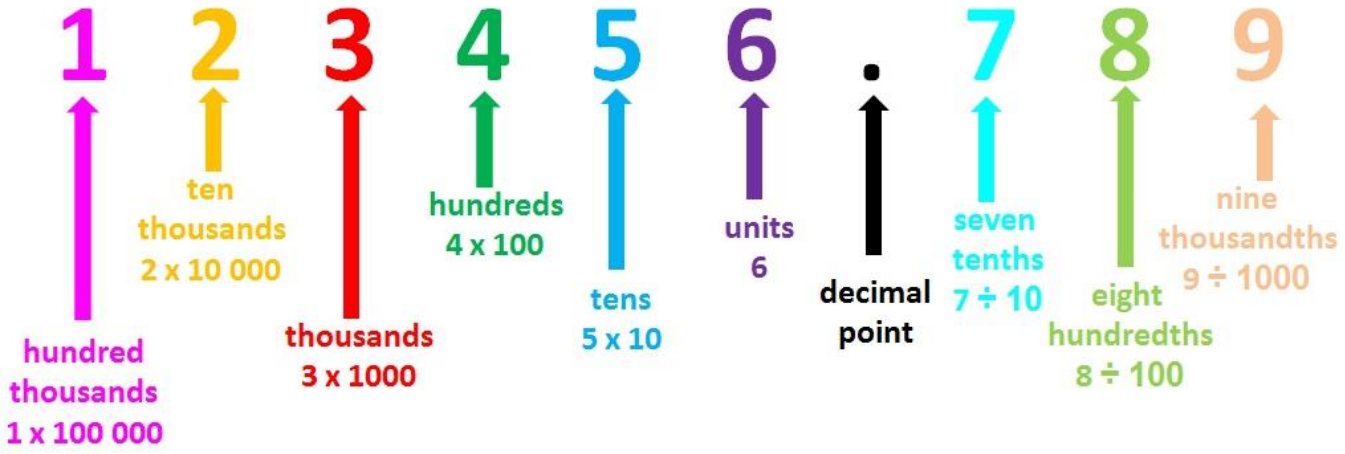
92% **27%**

11% **6%**

2.5% **0.7%**

Decimals into fractions

Some time ago we talked about place value. Remember this?



Look at the digits behind decimal point, e.g. **7÷ 10 (seven tenths)**

We've already said that the sign ÷ and the line in a fraction mean the same thing. So, in, for example, 0.8, all we have is:

$$8 \div 10 = \frac{8}{10}$$

Don't forget to simplify if you can: $\frac{8}{10} \begin{matrix} \div 2 \\ \div 2 \end{matrix} = \frac{4}{5}$

Hah, that's another easy one!

All we need to do is to divide by 10 and Bob's your uncle!
So 0.12 will be 12 ÷ 10,
0.005 will be 5 ÷ 10...
Right?

WRONG!!!

Rush you not, young Padwan!
Rushing leads to mistakes,
mistakes to anger,
anger to hate...
And hate leads to the Dark Side.
Your mind is your force!

Use the Force!

Oi! Yoda!
Stop messing with us and
go back to your own films!

hundredths

tenths thousands

0.123

Denominator on place value depends!

Optimus! Ratchet! Someone! Get rid of him NOW!

The number of zeros in denominator (bottom)will be the same as the number of digits after decimal point.

For example:

0.123 → 3 digits, so denominator will be 1000 (3 zeros)

0.74 → 2 digits, so denominator will be 100 (2 zeros)

0. 5542 → 4 digits, so denominator will be 10 000 (4 zeros)

Those digits after decimal point will be your numerator (top):

$$\mathbf{0.123 = \frac{123}{1000}} \qquad \mathbf{0.74 = \frac{74}{100}} \qquad \mathbf{0.5542 = \frac{5542}{10\,000}}$$

Do not forget to simplify the fraction!

Correct your Jedi Master is!
1.Digits after point as numerator write,
2.Digits count so number of zeros you know
3.Denominator write
4.The fraction simplify

That is The Path of The Light Side

That's it!
I'm gonna squish him!

So?

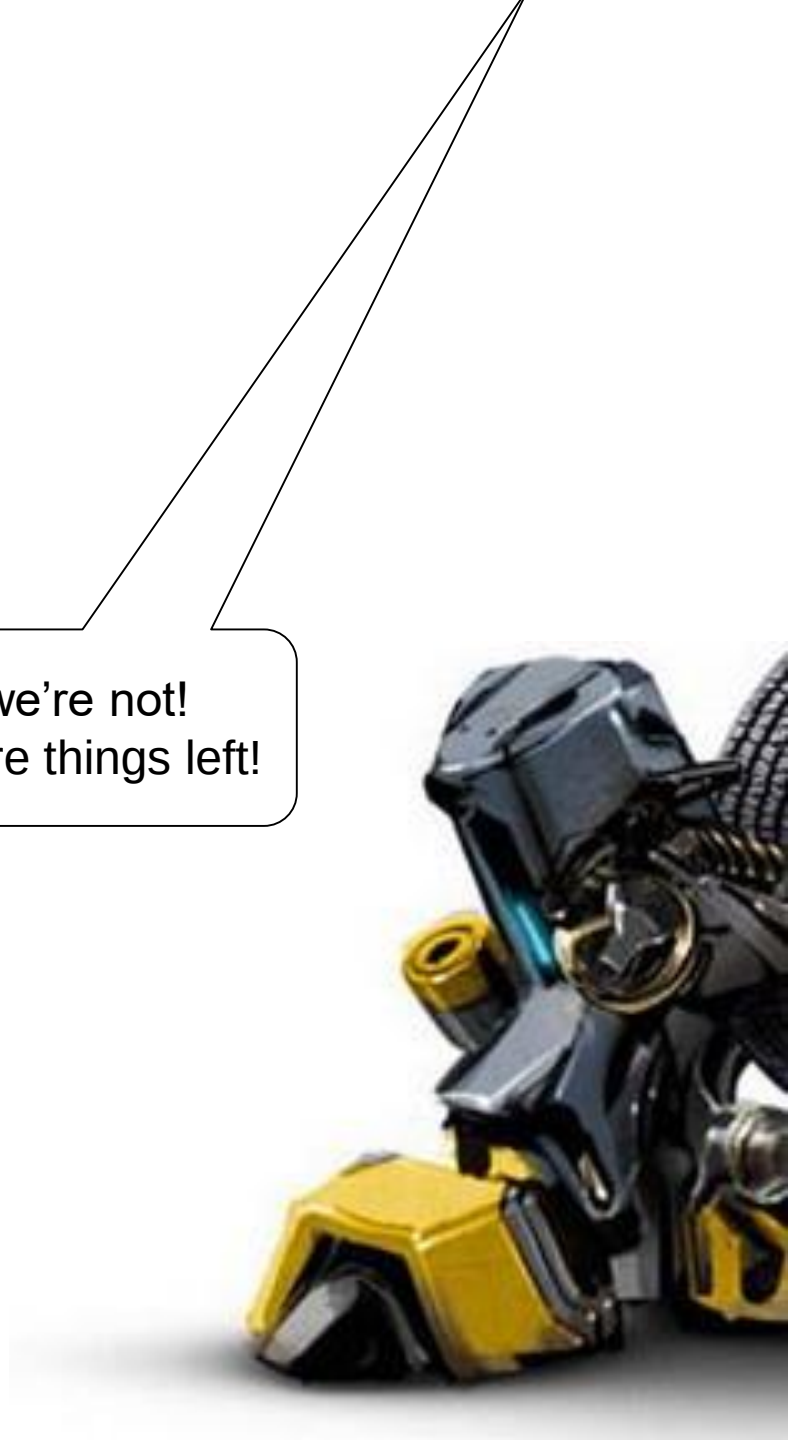
Stop it!
These green guys stick together, you know!

Squish this one and next thing you know there's Hulk smashing your carburettor!

Finally!
I thought he'd never leave!

I think we're done here...

No, we're not!
Two more things left!



Fractions into percentages

Percentages into fractions

This is done simply by going through decimals:

Fraction → decimal → percentage

Percentage → decimal → fraction

Examples:

Fractions into percentages

$\frac{3}{5} = 3 \div 5 = 5\overline{)\begin{array}{l}0.6\\3\\30\end{array}} = 0.6$

$0.6 \times 100\% = 0.60 = 60\%$

Percentages into fractions

$45\% \div 100\% = 45. = 0.45$

$0.45 = \frac{45}{100} = \frac{45 \div 5}{100 \div 5} = \frac{9}{20}$

Well, that's it then.
Not so bad, was it?

We've got to go now,
have some Decepticons
to smash before tea...

There are a few more
exercises for you,
to keep you fit...

Change the following fractions into percentages:

$\frac{1}{5}$ $\frac{9}{16}$ $\frac{7}{8}$

Change the following percentages into fractions:

40% **12%** **8%**

Use the Fooorceeee...