Fractions, Decimals and Percentages



Same value, three different costumes

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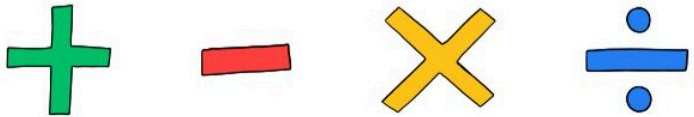
Today we will...

WE ARE LEARNING TO

- Define per cent as parts per hundred
- Convert between fractions, decimals and percentages
- Show one quantity as a percentage of another

SUCCESS LOOKS LIKE

- ✓ I can write % as a fraction and a decimal
- ✓ I can compare two values using percentages
- ✓ I can explain a percentage over 100%



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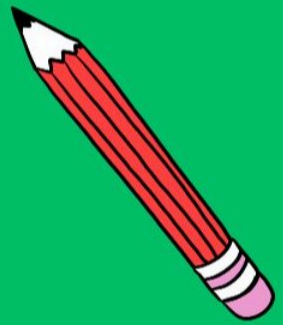
$a^2+b^2=c^2$

Same value, different looks

- Fraction: part of a whole
- Per cent: number per hundred
- Over whole: more than 100%

Same value

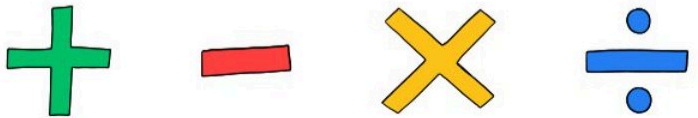
- Decimal: tenths, hundredths place
- Multiplier: % as times decimal



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Per cent means per hundred

- 50% means 50 out of 100, or 50/100
- Times 100 moves point two places to %
- Divide by 100 moves point two places to decimal



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$a^2+b^2=c^2$

What could this be?

A shopkeeper orders 135% of usual stock. Is that possible?





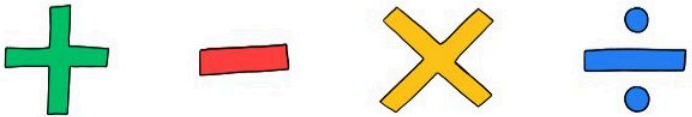
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Watch: swap the costumes



▶ 0:00 – 5:11

- Watch how top divided by bottom makes a decimal
- Listen for per hundred when % appears

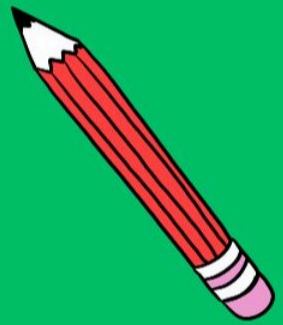


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$a^2+b^2=c^2$

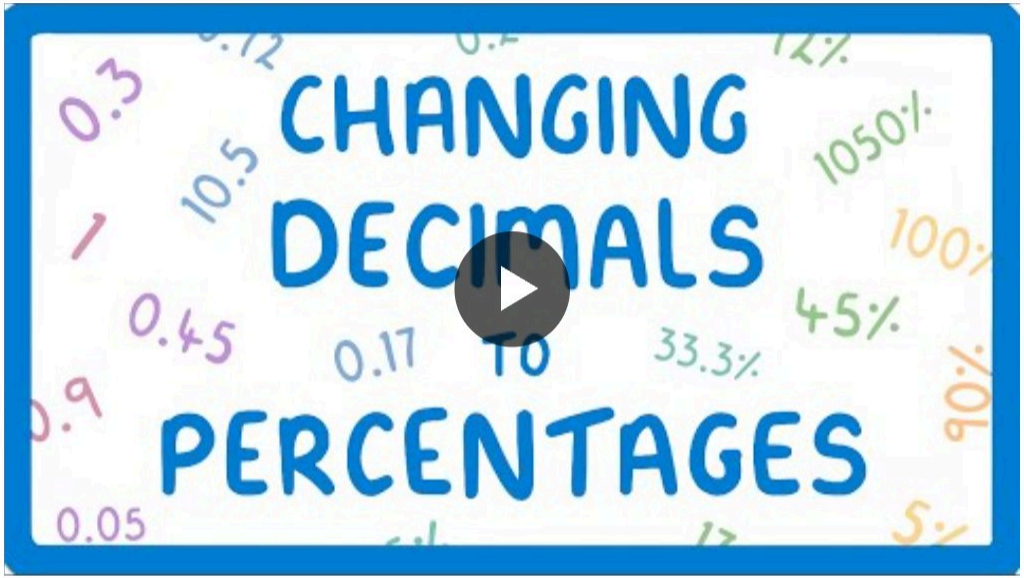
One value, three steps

3/8 means 3 divided by 8 → 3 divided by 8 = 0.375 → 0.375 times 100 = 37.5% → 37.5% means times 0.375 of an amount



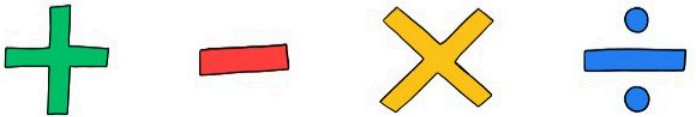
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Watch: decimals to percentages



▶ 0:00 – 2:29

- Watch point jump two places to %
- Spot 1.45 = 145%, more than one whole



$a^2+b^2=c^2$

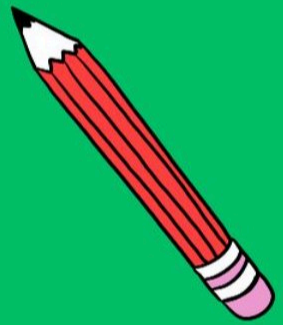
Your task

In pairs: turn 17/25, 3/5 and 27/20 into decimals and percentages, then order them.

1. Divide top by bottom to get decimal
2. Multiply decimal by 100 to get %
3. Order smallest to largest and explain over 100%

10 min

In pairs



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Four quick conversions

🔢

Fraction to Decimal

Divide the numerator by the denominator.

✨

Decimal to %

Multiply by 100 and add the % sign.

💯

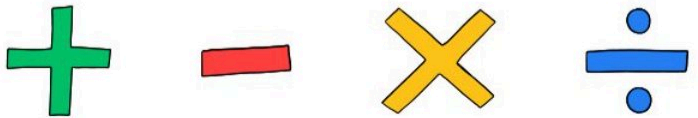
% to Decimal

Divide by 100, move point left two.

🧩

% to Fraction

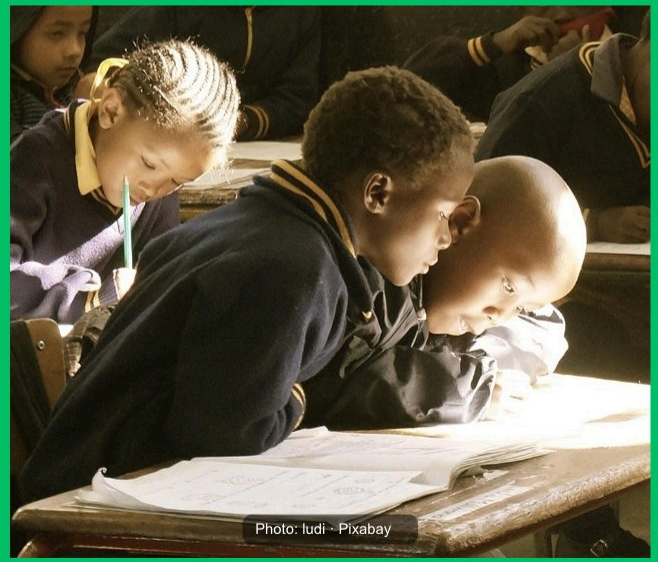
Write over 100, then simplify fully.



$a^2+b^2=c^2$

Think, pair, share

A student scores 14 out of 20, then 68% next time. Which result is better? Prove it.





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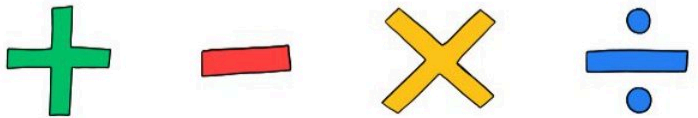
True or false?

8% = 0.8

135% = 1.35

3/5 = 60%

For a decimal, divide bottom by top



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