

# What is the change in percentage?

Percentage change calculations are about comparing old values with new values. There are two ways to do this (use whichever method you prefer):

## Method 1

Step 1: Calculate the change (subtract the old value from the new value)

Step 2: Divide that change by the old value (this will give you a decimal)

Step 3: Convert this to a percentage (multiply it by 100 and add a % sign)

## Method 2

Step 1: Divide the new value by the old value (this will give you a decimal)

Step 2: Convert it to a percentage (multiply it by 100 and add a % sign)

Step 3: Subtract 100% from it.

## Note

If the result is positive, it is a percentage increase; if it is a negative, just remove the - and call it a percentage decrease.

## Example

*Tyrex Ltd had 30,000 employees in 2013 and 31,000 employees in 2015. What is the percentage change between 2013 and 2015?*

Step 1:  $31,000 - 30,000 = 1000$

Step 2:  $1000 / 30,000 = 0.033$

Step 3:  $0.033 \times 100 = 3.3\%$

Step 1:  $31,000 / 30,000 = 1.033$

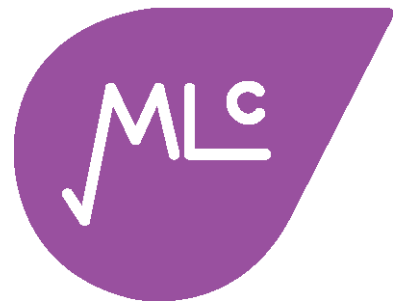
Step 2:  $1.033 \times 100 = 103.3\%$

Step 3:  $103.3\% - 100\% = 3.3\%$



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### Example

Dividends	2013	2014
ABC Ltd	£2.77	£2.50
DEF Plc	£6.41	£6.75

- (i) What was the percentage change in ABC Ltd dividends between 2013 and 2014?

Step 1:  $2.50 - 2.77 = -0.27$

Step 2:  $-0.27 / 2.77 = -0.097$

Step 3:  $-0.097 \times 100 = -9.7\%$

Step 1:  $2.50/2.77 = 0.903$

Step 2:  $0.903 \times 100 = 90.3\%$

Step 3:  $90.3 - 100 = -9.7\%$

Therefore, there was a 9.7% decrease.

- (ii) What was the percentage change in DEF Plc dividends between 2013 and 2014?

Step 1:  $6.75 - 6.41 = 0.34$

Step 2:  $0.34 / 6.41 = 0.053$

Step 3:  $0.053 \times 100 = 5.3\%$

Step 1:  $6.75/6.41 = 1.053$

Step 2:  $1.053 \times 100 = 105.3\%$

Step 3:  $105.3 - 100 = 5.3\%$

Therefore, there was a 5.3% increase.

### Note

We always put the change over the old value because we want to know how much the old value has changed.

#### Speed Tip!

*If you are given multiple choice answers, can you eliminate any of them straightaway? Also, can you easily work forwards from the remaining answers?*



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