

WJEC MATHEMATICS

HIGHER
3 TIER TOPICS

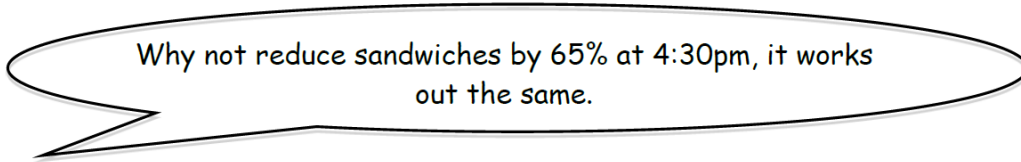
**PERCENTAGE INCREASE &
DECREASE**

@MrGoreMaths.

Spec 1 – Numeract – P2

3. Jane and Tomos own a sandwich business.
- (a) They decide to price sandwiches individually each morning.
At 3 p.m. any unsold sandwiches are reduced by 45%.
Any sandwiches still unsold by 4:30p.m. are reduced by a further 20%.

Jane says



Tomos disagrees with Jane.

Using multipliers, show that Jane is incorrect. [4]

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Nov 2016 – Numeract – P1

- (b) In another prize draw, it was planned to give £5000 as the first prize.
To make it more popular, the organisers decide to increase this first prize by 26%.

The most efficient method of calculating the amount of the increased first prize is

$$1.26 \times 5000.$$

The second prize was planned to be £3000, but it is now decided to decrease this prize by 6%.

Write down the most efficient method of calculating the amount of the decreased second prize.

You are not expected to work out the answer. [1]

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Nov 2016 – Numeracy – P2

2. The price of softwood changes each year.
The price has increased by 6% per annum for each of the last **5 years**.
Before this, the price had decreased by 2% per annum.
Seven years ago the price of softwood was £34 per m³.

Calculate the current price of softwood. [3]

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Nov 2016 – Numeracy – P2

4. Gwenda enjoys road running.

(a) *In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.*

She keeps a record of her run each day this week.

Day	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Distance	4.6 km	5.4 km	2.2 km	6.2 km	7.2 km	2.2 km	3.4 km
Time	26 mins	31 mins	12 mins	35 mins	40 mins	14 mins	22 mins

Last week, her average speed for the week was 9.6 kilometres per hour.
Calculate Gwenda's percentage improvement in her average speed from last week to this week.
You must show all your working. [6 + 2 OCW]

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Percentage improvement is %

June 2017 – Numeracy – P2

- (b) *In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.*

The talent contest is held once a year.
Every year, the cost of putting on the talent contest increases by 10% of the previous year's cost.
In summer 2014 the cost was £6600.

Calculate the cost of putting on the summer 2017 talent contest.
You must show all your working. [3 + 2 OCW]

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June 2017 – Numeracy – P2

- (b) The television was reduced in the sale by 26% of its original price.
It cost Marta £710.40 in the sale.
What was the original price of the television? [2]

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Original price £