

# Topic Test 1 (20 minutes)

## Basic percentages - Higher

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1 Circle the fraction that is equivalent to 44%

[1 mark]

$$\frac{4}{9}$$

$$\frac{11}{25}$$

$$\frac{11}{20}$$

$$\frac{4}{11}$$

2 Arrange the following values in order, starting with the smallest.

0.7

$$\frac{5}{8}$$

66%

three-quarters

[2 marks]

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Answer \_\_\_\_\_

3 Which is the greater percentage

18 out of 40

or 41 out of 90?

[2 marks]

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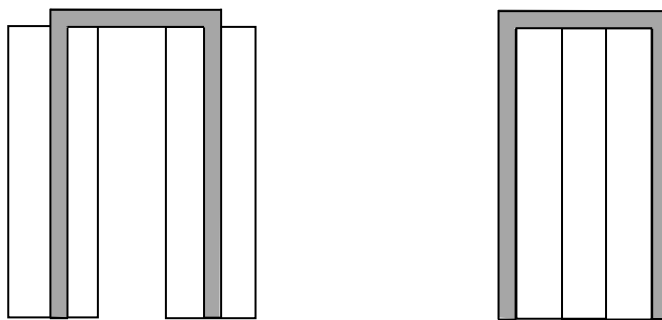
Answer \_\_\_\_\_

4 A quantity is doubled in size.  
By what percentage has it increased?  
Circle your answer.

[1 mark]

2%                      50%                      100%                      200%

5 A doorway is closed by 2 sliding doors.  
Each sliding door is 60% of the width of the doorway.  
When the doors are closed they overlap.



Not drawn  
accurately

What percentage of the width of the doorway is the overlap?

[1 mark]

Answer \_\_\_\_\_ %

6 Which of the following statements is definitely false.  
Tick your choice.

[1 mark]

I blew the balloon up to 120% of its original size.

I ate 120% of the cake.

I need to use 120% of the quantities in the recipe to  
change a recipe for 5 people into one for 6 people.

The height of the sunflower more than doubled in  
size because the height increased by 120%

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- 7 40% of the trees in a wood are diseased.  
75% of the trees in the wood are elms.

Work out the **least** possible percentage of trees in the wood that are diseased elms.

[2 marks]

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Answer \_\_\_\_\_ %

- 8 'Sofas R Us' increases its prices by 10% and then reduced them by 5%.  
'Sofa So Good' reduced its prices by 5% and then increased them by 10%

- 8 (a) Which shop increased its prices by the greater percentage?  
Circle your answer.

[1 mark]

tell      Sofas R Us                      Sofa So Good                      Both the same                      Cannot

- 8 (b) Explain your choice.

[2 marks]

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- 9** A square has a side of 8 cm  
The **area** of the square increases by 50%

Work out the percentage increase in the length of the side.

**[4 marks]**

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Answer \_\_\_\_\_ %

- 10**  $a$  is 30% of  $b$   
 $b$  is 90% of  $c$

What percentage of  $c$  is  $a$ ?

**[3 marks]**

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Answer \_\_\_\_\_ %