

# OCR GCSE Maths: Similarity and Congruency - Higher 3



Name: .....

Date: .....

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Which pair of triangles are congruent?

**A**

**B**

**C**

**D**

*Diagrams not drawn accurately*

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Correct Answer: A B C D

Explanation:

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The two shapes below are mathematically similar. Calculate the length of the missing side of the shape.

*Diagrams not drawn accurately*

**A** 0.5cm      **B** 3cm      **C** 37.25cm      **D** 3.5cm

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Correct Answer: A B C D

Explanation:

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What is the scale factor of these two similar shapes?

*Diagrams not drawn accurately*

**A**  $6 \div 9 = 0.3$       **B**  $6 \times 9 = 54$

**C**  $9 \div 6 = 1.5$       **D**  $9 - 6 = 3$

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Correct Answer: A B C D

Explanation:

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Which rule would prove that these 2 triangles below are congruent?

Side/ Angle/ Side (SAS)      Not enough information

Angle/ Side/ Angle (ASA) only      Right angle/ Hypotenuse/ Side (RHS) only

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Correct Answer: A B C D

Explanation:

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Calculate the size of the missing angle labelled x.

Diagram not drawn accurately

Not enough information      35°

55°      70°

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Correct Answer: A B C D

Explanation:

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Triangles C and D are similar. Calculate the size of angle b.

Diagrams not drawn accurately

30°      15°      120°      60°

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Correct Answer: A B C D

Explanation:

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These two shapes are similar. Calculate the volume of liquid that the large cylinder can hold.

Diagrams not drawn accurately

Volume = \_\_\_ml      Volume = 2000 ml

800ml      625ml      250ml      128ml

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Correct Answer: A B C D

Explanation:

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What is the ratio of  $b$  to  $a$ ?

Diagram not drawn to scale

A B C D

1:4 16:4 4:1 3:1

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Correct Answer: A B C D

Explanation:

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The two shapes below are mathematically similar. Which is the correct method to calculate the length of the missing side?

A B C D

Not enough information  $x \times \frac{y}{z}$

$z - x$   $x \times \frac{z}{y}$

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Correct Answer: A B C D

Explanation:

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These two shapes are similar. Calculate the length of the missing side of shape A.

Shape A Shape B

Area =  $40\text{cm}^2$  ? Area =  $120\text{cm}^2$  12cm 10cm

Diagrams not drawn accurately

A B C D

$4\text{cm}$   $\sqrt{3}\text{cm}$   $\frac{10}{\sqrt{3}}\text{cm}$   $10\text{cm}$

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Correct Answer: A B C D

Explanation:

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