Multiple choice questions - Similarity and congruence

Year: Year 11 · 10

Question 1 Which is NOT a condition for congruent triangles?

- ◯ **A.** SSS
- ◯ **B.** SAS
- ◯ **C.** AAA
- ◯ **D.** RHS

Question 2 Congruent shapes have

- ◯ **A.** the same shape only
- ◯ **B.** the same size only
- ◯ **C.** the same shape and size
- ◯ **D.** equal angles only

Question 3 Similar shapes have

- ◯ **A.** equal areas
- ◯ **B.** equal corresponding angles and proportional sides
- ◯ **C.** equal perimeters
- ◯ **D.** equal sides

Question 4 A shape is enlarged by scale factor 3. Its lengths are multiplied by

- ◯ **A.** 3
- ◯ **B.** 6
- ◯ **C.** 9
- ◯ **D.** 27

Question 5 (Higher) A shape is enlarged by scale factor 3. Its area is multiplied by

- ◯ **A.** 3
- ◯ **B.** 6
- ◯ **C.** 9
- ◯ **D.** 27

Question 6 (Higher) A shape is enlarged by scale factor 2. Its volume is multiplied by

- ◯ **A.** 2
- ◯ **B.** 4
- ◯ **C.** 6

- ◯ **D.** 8

Question 7 (Higher) Areas are in the ratio 4:25. The lengths are in the ratio

- ◯ **A.** 2:5
- ◯ **B.** 4:25
- ◯ **C.** 16:625
- ◯ **D.** 1:5

Question 8 (Higher) Volumes are in the ratio 1:8. The lengths are in the ratio

- ◯ **A.** 1:2
- ◯ **B.** 1:4
- ◯ **C.** 1:3
- ◯ **D.** 1:8

Question 9 In triangle ABC, DE is parallel to BC. Triangles ADE and ABC are

- ◯ **A.** congruent
- ◯ **B.** similar
- ◯ **C.** right-angled
- ◯ **D.** isosceles

Question 10 Triangles are similar with scale factor 4. A side of 3 cm becomes

- ◯ **A.** 7 cm
- ◯ **B.** 12 cm
- ◯ **C.** 1 cm
- ◯ **D.** 48 cm

Answer grid - Similarity and congruence

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Question	Answer	Explanation
1	**C**	AAA only gives similarity.
2	**C**	Identical.
3	**B**	Same shape.
4	**A**	Length factor.
5	**C**	3 squared.
6	**D**	2 cubed.
7	**A**	Square root.
8	**A**	Cube root.
9	**B**	Same angles.
10	**B**	3 x 4.