ARKANSAS GEOMETRY · UNIT 1 · 25 QUESTIONS

Congruence and Similarity — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Two triangles have all three pairs of corresponding sides equal They are congruent by**



A ASA

B SSS

C AAS

D SAS

Understand It with Pulse | Flag a mistake

2 **Two triangles have two pairs of corresponding sides equal and the included angles equal. They are congruent by**

A SSS

B ASA

C AAS

D SAS

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3 **In triangle ABC, AB = 7, BC = 9, and CA = 11 The largest angle is opposite the side of length**

A 7

B 9

C 20

D 11

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4 **Triangle DEF is congruent to triangle GHI Angle D measures 42°. Angle G measures**

- A 138°
- B 48°
- C 42°
- D 84°

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5 **An isosceles triangle has a vertex angle of 70°. Each base angle measures**

- A 55°
- B 110°
- C 70°
- D 35°

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6 **An exterior angle of a triangle measures 140°. One remote interior angle measures 60°. The other remote interior angle measures**

A 60°

B 40°

C 100°

D 80°

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7 **A triangle has two sides of lengths 8 and 13. The greatest possible whole number length of the third side is**

A 21

B 5

C 20

D 22

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8 **A triangle has two sides of lengths 6 and 11. Which length could be the third side?**

- A 5
- B 18
- C 16
- D 17

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9 **Two similar triangles have corresponding sides 4 and 12. Another side of the smaller triangle is 9. The corresponding side is**



A 27

B 18

C 36

D 3

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10 **Two similar triangles have shortest sides 5 and 15. The longest side of the smaller triangle is 12. The longest side of the larger triangle is _____**

ANSWER

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11 **Two similar figures have a linear scale factor of 3. The ratio of their areas is**

A 3

B 9

C 6

D 27

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12 **Two similar solids have a linear scale factor of 2. The ratio of their volumes is**

A 2

B 4

C 6

D 8

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13 **Under a dilation centered at the origin with scale factor 3, the point (2, 4) maps to**



A (6, 12)

B (2, 12)

C (6, 4)

D (5, 7)

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14 **Under a reflection across the x axis, the point (3, -5) maps to**



A (-3, -5)

B (-3, 5)

C (3, 5)

D (5, 3)

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15 **Under a translation 4 units right and 3 units down, the point (-2, 6) maps to**

- A (2, 3)
- B (-6, 9)
- C (2, 9)
- D (-6, 3)

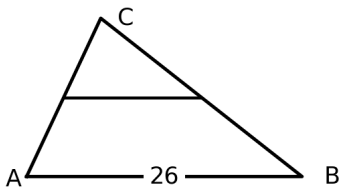
Understand It with Pulse | Flag a mistake

16 **Under a rotation of 90° counterclockwise about the origin, the point (4, 1) maps to**

- A (1, 4)
- B (-1, 4)
- C (4, -1)
- D (-4, -1)

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17 **The triangle shown has a midsegment drawn parallel to the base. The base is labelled in the diagram. The length of the midsegment is**



A 13

B 26

C 52

D 6.5

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18 **A line parallel to one side of a triangle divides another side into segments of lengths 5 and 15, and divides the third side into segments of lengths 6 and x. The value of x is**

- A 18
- B 10
- C 2
- D 30

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19 **Two parallel lines are cut by a transversal One alternate interior angle measures 68°. The other alternate interior angle measures**

- A 112°
- B 22°
- C 68°
- D 136°

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20 **Two parallel lines are cut by a transversal One same side interior angle measures 115°. The other same side interior angle measures**

- A 115°
- B 25°
- C 230°
- D 65°

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21 **The sum of the interior angles of a hexagon is**

- A 540°
- B 720°
- C 360°
- D 900°

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22 **Each interior angle of a regular pentagon measures**

- A 120°
- B 90°
- C 135°
- D 108°

Understand It with Pulse | Flag a mistake

23 **In a parallelogram, one angle measures 75°. The consecutive angle measures**

- A 75°
- B 15°
- C 105°
- D 150°

Understand It with Pulse | Flag a mistake

24 **The diagonals of a rhombus have lengths 10 and 24. The side length of the rhombus is**

- A 26
- B 13
- C 17
- D 34

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25 **A shadow method problem: a 6 foot pole casts a 4 foot shadow At the same time a tree casts a 20 foot shadow The height of the tree, in feet, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. D
3. D
4. C
5. A
6. D
7. C
8. C
9. A
10. 36
11. B
12. D
13. A
14. C
15. A
16. B
17. A
18. A
19. C
20. D
21. B
22. D
23. C
24. B
25. 30

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