CONNECTICUT GEOMETRY · UNIT 3 · 25 QUESTIONS

Trigonometry and Measurement — 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 **A right triangle has legs 3 and 4. Its hypotenuse is**

- **A** 5
- **B** 6
- **C** 4
- **D** 7

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2 **A right triangle has legs 6 and 8. Its hypotenuse is**

- A 11
- B 10
- C 9
- D 14

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3 **A right triangle has legs 5 and 12. Its hypotenuse is**

- A 14
- B 12
- C 13
- D 17

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4 **A right triangle has legs 9 and 12. Its hypotenuse is**

- A 16
- B 14
- C 21
- D 15

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5 **A right triangle has legs 8 and 15. Its hypotenuse is**

- A 17
- B 18
- C 16
- D 23

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6 **A right triangle has hypotenuse 5 and one leg 3. The other leg is**

- A 5
- B 4
- C 6
- D 7

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7 **A right triangle has hypotenuse 10 and one leg 6. The other leg is**

- A 9
- B 10
- C 8
- D 14

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8 A right triangle has hypotenuse 13 and one leg 5. The other leg is

- A 13
- B 14
- C 17
- D 12

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9 A right triangle has hypotenuse 15 and one leg 9. The other leg is

- A 12
- B 13
- C 14
- D 21

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10 A right triangle has hypotenuse 17 and one leg 8. The other leg is

- **A** 16
- **B** 15
- **C** 17
- **D** 23

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11 In a right triangle, the side opposite an acute angle is 3 and the hypotenuse is 5. The sine of the angle is

- **A** $\frac{4}{5}$
- **B** $\frac{3}{4}$
- **C** $\frac{3}{5}$
- **D** $\frac{5}{3}$

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12 In a right triangle, the side opposite an acute angle is 6 and the hypotenuse is 10. The sine of the angle is

- **A** $\frac{8}{10}$
- **B** $\frac{6}{8}$
- **C** $\frac{10}{6}$
- **D** $\frac{6}{10}$

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13 In a right triangle, the side opposite an acute angle is 5 and the hypotenuse is 13. The sine of the angle is

- **A** $\frac{5}{13}$
- **B** $\frac{12}{13}$
- **C** $\frac{5}{12}$
- **D** $\frac{13}{5}$

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14 In a right triangle, the side opposite an acute angle is 9 and the hypotenuse is 15. The sine of the angle is

- **A** $\frac{12}{15}$
- **B** $\frac{9}{15}$
- **C** $\frac{9}{12}$
- **D** $\frac{15}{9}$

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15 In a right triangle, the side opposite an acute angle is 8 and the hypotenuse is 17. The sine of the angle is

- **A** $\frac{15}{17}$
- **B** $\frac{8}{15}$
- **C** $\frac{8}{17}$
- **D** $\frac{17}{8}$

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16 In a right triangle, the side adjacent to an acute angle is 4 and the hypotenuse is 5. The cosine of the angle is

- **A** $\frac{3}{5}$
- **B** $\frac{4}{3}$
- **C** $\frac{5}{4}$
- **D** $\frac{4}{5}$

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17 In a right triangle, the side adjacent to an acute angle is 8 and the hypotenuse is 10. The cosine of the angle is

- **A** $\frac{8}{10}$
- **B** $\frac{6}{10}$
- **C** $\frac{8}{6}$
- **D** $\frac{10}{8}$

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18 In a right triangle, the side adjacent to an acute angle is 12 and the hypotenuse is 13. The cosine of the angle is

- **A** $\frac{5}{13}$
- **B** $\frac{12}{13}$
- **C** $\frac{12}{5}$
- **D** $\frac{13}{12}$

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19 In a right triangle, the side adjacent to an acute angle is 12 and the hypotenuse is 15. The cosine of the angle is

- **A** $\frac{9}{15}$
- **B** $\frac{12}{9}$
- **C** $\frac{12}{15}$
- **D** $\frac{15}{12}$

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20 In a right triangle, the side adjacent to an acute angle is 15 and the hypotenuse is 17. The cosine of the angle is

A $\frac{8}{17}$

B $\frac{15}{8}$

C $\frac{17}{15}$

D $\frac{15}{17}$

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21 In a right triangle, the side opposite an acute angle is 3 and the adjacent side is 4. The tangent of the angle is

A $\frac{3}{4}$

B $\frac{4}{3}$

C $\frac{3}{5}$

D $\frac{4}{5}$

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22 In a right triangle, the side opposite an acute angle is 6 and the adjacent side is 8. The tangent of the angle is

- **A** $\frac{8}{6}$
- **B** $\frac{6}{8}$
- **C** $\frac{6}{10}$
- **D** $\frac{8}{10}$

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23 In a right triangle, the side opposite an acute angle is 5 and the adjacent side is 12. The tangent of the angle is

- **A** $\frac{12}{5}$
- **B** $\frac{5}{13}$
- **C** $\frac{5}{12}$
- **D** $\frac{12}{13}$

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24 In a right triangle, the side opposite an acute angle is 9 and the adjacent side is 12. The tangent of the angle is

A $\frac{12}{9}$

B $\frac{9}{15}$

C $\frac{12}{15}$

D $\frac{9}{12}$

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25 In a right triangle, the side opposite an acute angle is 8 and the adjacent side is 15. The tangent of the angle is

A $\frac{8}{15}$

B $\frac{15}{8}$

C $\frac{8}{17}$

D $\frac{15}{17}$

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ANSWER KEY

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

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