DELAWARE PRECALCULUS · UNIT 2 · 25 QUESTIONS

Trigonometry — 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 **The value of cos 90° is**

- **A** 1
- **B** 0
- **C** $\sqrt{\frac{3}{2}}$
- **D** $\sqrt{\frac{2}{2}}$

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2 In a right triangle, the side opposite an acute angle is 9, the adjacent side is 12, and the hypotenuse is 15. The tangent of the angle is

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

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3 In a 45-45-90 triangle, each leg is 5. The hypotenuse is

- **A** 10
- **B** $5\sqrt{3}$
- **C** 5
- **D** $5\sqrt{2}$

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4 **The amplitude of y = 3sin x is**

- **A** 3
- **B** 4
- **C** 2
- **D** 6

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5 **The value of sin 60° is**

- **A** 0
- **B** $\frac{1}{2}$
- **C** $\sqrt{\frac{3}{2}}$
- **D** $\sqrt{\frac{2}{2}}$

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6 **The value of cos 60° is**

- **A** 1
- **B** $\sqrt{\frac{3}{2}}$
- **C** $\sqrt{\frac{2}{2}}$
- **D** $\frac{1}{2}$

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7 **In a right triangle, the side opposite an acute angle is 5, the adjacent side is 12, and the hypotenuse is 13. The tangent of the angle is**

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

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8 **In a 45-45-90 triangle, each leg is 4. The hypotenuse is**

- A 8
- B $4\sqrt{2}$
- C $4\sqrt{3}$
- D 4

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9 **The amplitude of y = 2sin x is**

- A 3
- B 1
- C 2
- D 4

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10 The value of sin 30° is

- **A** $\frac{1}{2}$
- **B** 0
- **C** $\sqrt{\frac{2}{2}}$
- **D** $\sqrt{\frac{3}{2}}$

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11 In a right triangle, the side opposite an acute angle is 5, the adjacent side is 12, and the hypotenuse is 13. 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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12 **In a 30-60-90 triangle, the shortest side is 6. The hypotenuse is**

- A 14
- B 6
- C 10
- D 12

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13 **The amplitude of y = 2sin x is**

- A 2
- B 3
- C 1
- D 4

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14 The period of $y = \sin 3x$ is

- **A** 2π
- **B** $2\pi/3$
- **C** π
- **D** 3π

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15 In a right triangle, the side opposite an acute angle is 8, the adjacent side is 15, and the hypotenuse is 17. 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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16 **In a 45-45-90 triangle, each leg is 5. The hypotenuse is**

A 10

B $5\sqrt{2}$

C $5\sqrt{3}$

D 5

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17 **The amplitude of y = 4sin x is**

A 5

B 3

C 4

D 8

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18 **The value of sin 0° is**

- A 0
- B $\frac{1}{2}$
- C $\sqrt{\frac{2}{2}}$
- D $\sqrt{\frac{3}{2}}$

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19 **The value of cos 0° is**

- A $\sqrt{\frac{3}{2}}$
- B 1
- C $\sqrt{\frac{2}{2}}$
- D $\frac{1}{2}$

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20 In a right triangle, the side opposite an acute angle is 8, the adjacent side is 15, 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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21 In a 45-45-90 triangle, each leg is 4. The hypotenuse is

A 8

B $4\sqrt{3}$

C 4

D $4\sqrt{2}$

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22 The value of sin 90° is

- A 0
- B $\frac{1}{2}$
- C 1
- D $\sqrt{\frac{2}{2}}$

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23 In a right triangle, the side opposite an acute angle is 5, the adjacent side is 12, 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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24 In a 30-60-90 triangle, the shortest side is 3. The hypotenuse is

- A 8
- B 6
- C 3
- D 4

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25 The value of sin 60° is

- A $\sqrt{\frac{3}{2}}$
- B 0
- C $\frac{1}{2}$
- D $\sqrt{\frac{2}{2}}$

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ANSWER KEY

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

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