ONTARIO FUNCTIONS AND APPLICATIONS, GRADE 11, UNIVERSITY/COLLEGE PREPARATION (MCF3M) · UNIT C · 25 QUESTIONS

Trigonometric Functions — 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 ladder leans against a wall forming a right triangle with legs 3 and 4 The length of the ladder is**

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

Understand It with Pulse | Flag a mistake

2 **A ladder leans against a wall forming a right triangle with legs 6 and 8 The length of the ladder is**

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

Understand It with Pulse | Flag a mistake

3 **A ladder leans against a wall forming a right triangle with legs 5 and 12 The length of the ladder is**

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

Understand It with Pulse | Flag a mistake

4 **A ladder 10 metres long leans against a wall with its foot 6 metres from the wall. It reaches, in metres, up the wall**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A ramp rises 1 metres over a slope of length 2 metres. The angle of elevation, in degrees, is**

A 30

B 45

C 60

D 15

Understand It with Pulse | Flag a mistake

6 **A ramp rises 3 metres over a slope of length 6 metres. The angle of elevation, in degrees, is**

- A 45
- B 60
- C 30
- D 15

Understand It with Pulse | Flag a mistake

7 **A ramp rises 5 metres over a slope of length 10 metres. The angle of elevation, in degrees, is**

- A 45
- B 60
- C 15
- D 30

Understand It with Pulse | Flag a mistake

8 **A ramp has a vertical rise of 3 metres and a slope length of 5 metres. The sine of its angle of elevation is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A tree casts a shadow 12 metres long and the angle of elevation of the sun is 45 degrees. The height of the tree, in metres, is**

A 12

B 17

C 7

D 24

Understand It with Pulse | Flag a mistake

10 **A tree casts a shadow 20 metres long and the angle of elevation of the sun is 45 degrees. The height of the tree, in metres, is**

- A 25
- B 15
- C 40
- D 20

Understand It with Pulse | Flag a mistake

11 **A tree casts a shadow 8 metres long and the angle of elevation of the sun is 45 degrees. The height of the tree, in metres, is**

- A 13
- B 8
- C 3
- D 16

Understand It with Pulse | Flag a mistake

12 **A tree casts a shadow 12 metres long when the sun angle is 45 degrees. The height of the tree, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **In a right triangle the side opposite angle A has length 3 and the hypotenuse has length 5 The value of sin A is**

A $\frac{4}{5}$

B $\frac{3}{4}$

C $\frac{5}{3}$

D $\frac{3}{5}$

Understand It with Pulse | Flag a mistake

14 In a right triangle the side opposite angle A has length 5 and the hypotenuse has length 13 The value of sin A is

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

Understand It with Pulse | Flag a mistake

15 In a right triangle the side opposite angle A has length 8 and the hypotenuse has length 17 The value of sin A is

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

Understand It with Pulse | Flag a mistake

16 **In a right triangle, the side opposite angle A is 7 and the hypotenuse is 25. The value of sin A is**

ANSWER

Understand It with Pulse | Flag a mistake

17 **Daily temperature follows T(t) = 6 sin t + 20 The maximum temperature is**

A 20

B 26

C 6

D 28

Understand It with Pulse | Flag a mistake

18 **Daily temperature follows T(t) = 4 sin t + 15 The maximum temperature is**

A 15

B 4

C 21

D 19

Understand It with Pulse | Flag a mistake

19 **Daily temperature follows T(t) = 8 sin t + 30 The maximum temperature is**

A 38

B 30

C 8

D 40

Understand It with Pulse | Flag a mistake

20 **A temperature model is T = 15 + 5 sin t . The highest temperature it gives is**

ANSWER

Understand It with Pulse | Flag a mistake

21 **Daily temperature follows T(t) = 6 sin t + 20 The minimum temperature is**

A 20

B 26

C 0

D 14

Understand It with Pulse | Flag a mistake

22 **Daily temperature follows T(t) = 4 sin t + 15 The minimum temperature is**

A 15

B 11

C 19

D 0

Understand It with Pulse | Flag a mistake

23 **Daily temperature follows T(t) = 8 sin t + 30 The minimum temperature is**

A 30

B 38

C 22

D 0

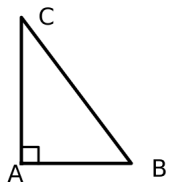
Understand It with Pulse | Flag a mistake

24 **A temperature model is T = 12 - 4 sin t . The lowest temperature it gives is**

ANSWER

Understand It with Pulse | Flag a mistake

25 **The right triangle shown has its vertices marked. The length of its hypotenuse is Figure 1**



A 12

B 10

C 8

D 15

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. A
3. C
4. 8
5. A
6. C
7. D
8. 0.6
9. A
10. D
11. B
12. 12
13. D
14. A
15. D
16. 0.28
17. B
18. D
19. A
20. 20
21. D
22. B
23. C
24. 8
25. B

© 2026 Brett Robbins. All Rights Reserved.