ONTARIO FUNCTIONS, GRADE 11, UNIVERSITY PREPARATION (MCR3U) · 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 **An angle of 180° in radians is**

- A π/3
- B 2π/3
- C π
- D 3π/2

Understand It with Pulse | Flag a mistake

2 **Angle A is acute, the opposite side has length 5 and the adjacent side has length 12 The value of tan A is**

- A $\frac{12}{5}$
- B $\frac{5}{12}$
- C $\frac{5}{17}$
- D $\frac{12}{17}$

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

- A 3
- B 1
- C 13
- D 2

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4 **The exact value of cos 30° is**

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

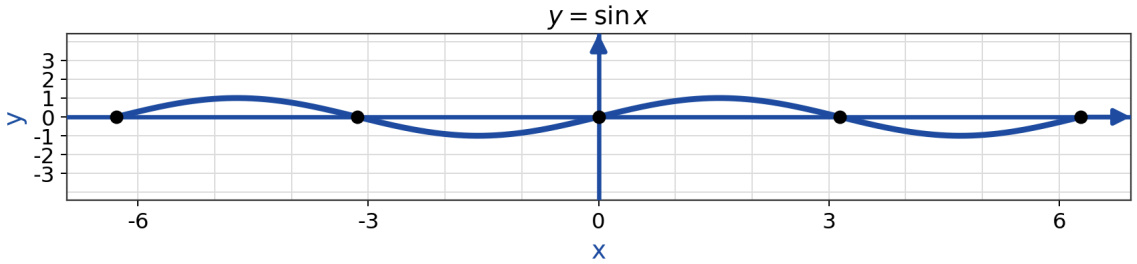
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5 **The exact value of sin 30° is**

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

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6 **The graph shows a sine function. Its amplitude is Figure 1**



A 2

B 3

C 1

D 12

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7 **The period, in degrees, of y = sin 2x is**

A 240

B 90

C 360

D 180

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8 A sine model for tide height is $h(t) = 5 \sin t + 10$ The maximum tide height is

- A 15
- B 10
- C 5
- D 17

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9 Angle A is acute and $\sin A = \frac{3}{5}$ The value of cos A is

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

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10 The reference angle for 210° in degrees, is

- A 30
- B 60
- C 40
- D 90

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11 An angle of 270° in radians is

- A π
- B π/2
- C 3π/2
- D 2π

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12 **Angle A is acute, the opposite side has length 8 and the adjacent side has length 15 The value of tan A is**

- A $\frac{15}{8}$
- B $\frac{8}{23}$
- C $\frac{15}{23}$
- D $\frac{8}{15}$

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

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

Understand It with Pulse | Flag a mistake

14 The exact value of cos 45° is

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

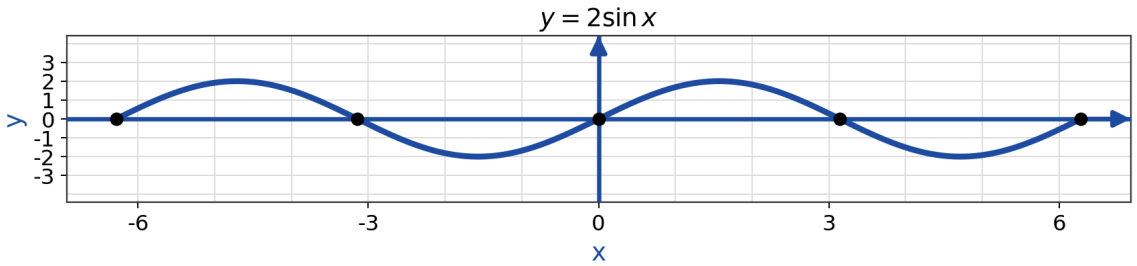
Understand It with Pulse | Flag a mistake

15 The exact value of sin 45° is

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

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16 **The graph shows a sine function. Its amplitude is Figure 2**



A 3

B 4

C 2

D 1

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17 **The period, in degrees, of y = sin 3x is**

A 120

B 180

C 60

D 360

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18 **A sine model for tide height is h(t) = 3 sin t + 20 The maximum tide height is**

- A 20
- B 3
- C 25
- D 23

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19 **An angle of 360° in radians is**

- A π/3
- B 2π/3
- C 2π
- D 3π/2

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20 **Angle A is acute, the opposite side has length 7 and the adjacent side has length 24 The value of tan A is**

A $\frac{24}{7}$

B $\frac{7}{31}$

C $\frac{7}{24}$

D $\frac{24}{31}$

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

A 5

B 4

C 3

D 1

Understand It with Pulse | Flag a mistake

22 **The exact value of cos 60° is**

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

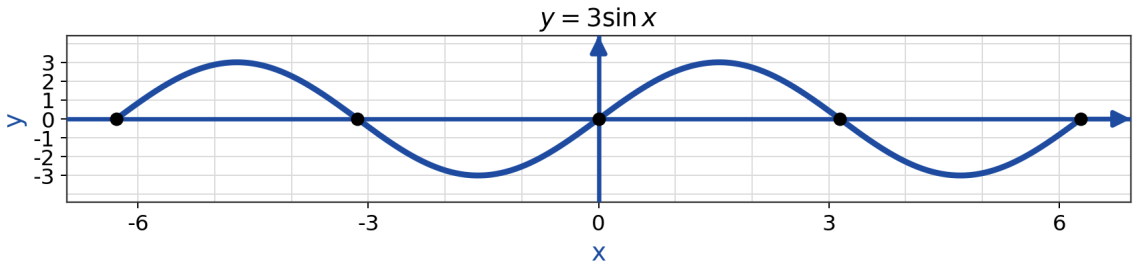
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23 **The exact value of sin 60° is**

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

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24 **The graph shows a sine function. Its amplitude is Figure 3**



A 4

B 5

C 3

D 1

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25 **The period, in degrees, of y = sin 4x is**

A 150

B 90

C 45

D 360

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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