ONTARIO ADVANCED FUNCTIONS, GRADE 12, UNIVERSITY PREPARATION (MHF4U) · UNIT C · 10 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 **The value of $\sin^2 60° + \cos^2 60°$ is**

- A 0
- B 1
- C 2
- D -1

Understand It with Pulse | Flag a mistake

2 **Using the double angle identity, sin 2(30°) equals sin 60° whose exact value is**

A $\frac{1}{2}$

B $\sqrt{3}/2$

C $\sqrt{2}/2$

D 1

Understand It with Pulse | Flag a mistake

3 **The value of tan 0° is**

A 1

B -1

C 2

D 0

Understand It with Pulse | Flag a mistake

4 **A model $h(t) = 6 \sin t + 25$ has maximum value**

- **A** 25
- **B** 6
- **C** 32
- **D** 31

Understand It with Pulse | Flag a mistake

5 **The solutions of $\sin x = 0$ in the interval $0 \le x < 2\pi$ include which pair, in radians? The pair is**

- **A** $\pi/2, 3\pi/2$
- **B** $\pi/2, \pi$
- **C** $0, \pi$
- **D** $0, \pi/2$

Understand It with Pulse | Flag a mistake

6 **The value of $\sin^2 90° + \cos^2 90°$ is**

A 0

B 2

C -1

D 1

Understand It with Pulse | Flag a mistake

7 **Using the double angle identity, sin 2(45°) equals sin 90° whose exact value is**

A 1

B $\frac{1}{2}$

C $\sqrt{3}/2$

D $\sqrt{2}/2$

Understand It with Pulse | Flag a mistake

8 **The value of tan 180° is**

A 0

B 1

C -1

D 2

Understand It with Pulse | Flag a mistake

9 **The value of $\sin^2 120° + \cos^2 120°$ is**

A 0

B 2

C -1

D 1

Understand It with Pulse | Flag a mistake

10 **Using the double angle identity, sin 2(60°) equals sin 120° whose exact value is**

A $\frac{1}{2}$

B $\sqrt{2}/2$

C 1

D $\sqrt{3}/2$

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. B
3. D
4. D
5. C
6. D
7. A
8. A
9. D
10. D

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