Multiple choice questions - Trigonometry in right-angled triangles

Year: Year 9 · 10

Question 1 sin θ is equal to:

- ◯ **A.** A/H
- ◯ **B.** O/A
- ◯ **C.** O/H
- ◯ **D.** H/O

Question 2 tan θ is equal to:

- ◯ **A.** O/A
- ◯ **B.** A/O
- ◯ **C.** O/H
- ◯ **D.** A/H

Question 3 Angle 30°, hypotenuse 12 cm. The opposite side is:

- ◯ **A.** 6 cm
- ◯ **B.** 10.4 cm
- ◯ **C.** 24 cm
- ◯ **D.** 20 cm

Question 4 Opposite 4, adjacent 4. The angle is:

- ◯ **A.** 30°
- ◯ **B.** 45°
- ◯ **C.** 60°
- ◯ **D.** 90°

Question 5 To find a hypotenuse when you know the angle and the opposite side, use:

- ◯ **A.** O × sin θ
- ◯ **B.** O ÷ sin θ
- ◯ **C.** O ÷ cos θ
- ◯ **D.** O × tan θ

Question 6 To find an angle from tan θ = 0.5 you use:

- ◯ **A.** tan 0.5
- ◯ **B.** $\tan^{-1}$ 0.5
- ◯ **C.** $\sin^{-1}$ 0.5

◯ **D.** 0.5 ÷ tan

Question 7 Your calculator must be in:

◯ **A.** radians
◯ **B.** degrees
◯ **C.** gradians
◯ **D.** any mode

Question 8 Which triangle can you use trigonometry on?

◯ **A.** any triangle
◯ **B.** a right-angled triangle
◯ **C.** only isosceles
◯ **D.** only equilateral

Question 9 Adjacent 8, hypotenuse 10. cos θ is:

◯ **A.** 0.6
◯ **B.** 0.8
◯ **C.** 1.25
◯ **D.** 0.125

Question 10 The angle of elevation is measured from:

◯ **A.** the vertical
◯ **B.** the horizontal
◯ **C.** the ground to the vertical
◯ **D.** north

Answer grid - Trigonometry in right-angled triangles

Year: Year 9

Question	Answer	Explanation
1	**C**	SOH: sine = opposite over hypotenuse.
2	**A**	TOA.
3	**A**	$12 \times \sin 30° = 6$.
4	**B**	$\tan \theta = 1$.
5	**B**	$H = O \div \sin \theta$.
6	**B**	Inverse tangent.
7	**B**	Angles in these problems are in degrees.
8	**B**	SOH CAH TOA is for right-angled triangles.
9	**B**	$8 \div 10$.
10	**B**	Upwards from the horizontal.