

2014-2015 "Mathematical Olympiad" Test

Name: _____
 Class: _____
 School: _____

A. Choose the correct answer:

1. The number of solutions of the equation $x^2 + 2x + 1 = 0$ is:
 - a) 1
 - b) 2
 - c) 3
 - d) 4
2. The value of $\sin^2 30^\circ + \cos^2 60^\circ$ is:
 - a) 1
 - b) 2
 - c) 3
 - d) 4
3. The area of a square with side length 5 is:
 - a) 10
 - b) 20
 - c) 25
 - d) 30
4. The perimeter of a rectangle with length 8 and width 5 is:
 - a) 13
 - b) 23
 - c) 33
 - d) 43
5. The volume of a cube with side length 3 is:
 - a) 9
 - b) 27
 - c) 81
 - d) 243
6. The sum of the interior angles of a triangle is:
 - a) 90 degrees
 - b) 180 degrees
 - c) 270 degrees
 - d) 360 degrees
7. The area of a circle with radius 4 is:
 - a) 16π
 - b) 32π
 - c) 64π
 - d) 128π
8. The perimeter of a square with side length 6 is:
 - a) 12
 - b) 18
 - c) 24
 - d) 30
9. The area of a rectangle with length 10 and width 5 is:
 - a) 50
 - b) 100
 - c) 150
 - d) 200
10. The volume of a cylinder with radius 3 and height 4 is:
 - a) 36π
 - b) 72π
 - c) 108π
 - d) 144π

B. Fill in the blank:

1. The square root of 16 is _____.
2. The value of $\sin 90^\circ$ is _____.
3. The area of a square with side length 7 is _____.
4. The perimeter of a rectangle with length 12 and width 8 is _____.
5. The volume of a cube with side length 4 is _____.
6. The sum of the interior angles of a quadrilateral is _____.
7. The area of a circle with radius 5 is _____.
8. The perimeter of a square with side length 9 is _____.
9. The area of a rectangle with length 15 and width 6 is _____.
10. The volume of a cylinder with radius 2 and height 5 is _____.