



Mathematics Note

For Pakistan Air Force

1. The value of $(7 \times 6) \div 3$ is:

- (a) 42
- (b) 14
- (c) 21
- (d) 18

☒ Correct Answer: (b) 14

2. If $x = 2$, find the value of $2x^2 + 3x$:

- (a) 14
- (b) 10
- (c) 16
- (d) 12

☒ Correct Answer: (a) 14

3. Simplify: $(15 - 5) \times 2$

- (a) 25
- (b) 30
- (c) 20
- (d) 15

☒ Correct Answer: (c) 20

4. If $\sin \theta = 1$, then $\theta = ?$

- (a) 0°
- (b) 30°
- (c) 90°
- (d) 180°

☒ Correct Answer: (c) 90°

5. The square root of 121 is:

- (a) 10
- (b) 11
- (c) 12
- (d) 13

☒ Correct Answer: (b) 11

6. The value of $\cos 0^\circ$ is:

- (a) 0
- (b) 1
- (c) -1

(d) ∞

✓ Correct Answer: (b) 1

7. Solve: $2x - 5 = 9$

(a) 7

(b) 6

(c) 5

(d) 8

✓ Correct Answer: (a) 7

8. The value of $\tan 45^\circ$ is:

(a) 0

(b) 1

(c) $\sqrt{3}$

(d) ∞

✓ Correct Answer: (b) 1

9. The sum of first 10 natural numbers is:

(a) 50

(b) 45

(c) 55

(d) 60

✓ Correct Answer: (c) 55

10. If $a = 3$, $b = 2$, then $a^2 + b^2 = ?$

(a) 13

(b) 12

(c) 15

(d) 11

✓ Correct Answer: (a) 13

11. The value of $\log_{10} 100$ is:

(a) 1

(b) 2

(c) 3

(d) 10

✓ Correct Answer: (b) 2

12. If 5 pencils cost Rs. 50, then 1 pencil costs:

(a) Rs. 15

(b) Rs. 5

(c) Rs. 10

(d) Rs. 20

✓ Correct Answer: (c) Rs. 10

13. The perimeter of a square of side 5 cm is:

(a) 15 cm

(b) 20 cm

(c) 25 cm

(d) 30 cm

✓ Correct Answer: (b) 20 cm

14. The solution of $3x = 18$ is:

(a) 9

(b) 6

(c) 3

(d) 12

✓ Correct Answer: (b) 6

15. If $x = 4$, find the value of x^3 :

(a) 16

(b) 64

(c) 8

(d) 12

✓ Correct Answer: (b) 64

16. The value of $\cos 90^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) ∞

✓ Correct Answer: (a) 0

17. If a triangle has sides 3, 4, 5 then it is:

(a) Equilateral

(b) Isosceles

(c) Right-angled

(d) Scalene

✓ Correct Answer: (c) Right-angled

18. The value of $(-3)^2$ is:

(a) -9

(b) 9

(c) -6

(d) 6

✓ Correct Answer: (b) 9

19. If mean of 2, 4, 6, 8 is:

(a) 5

(b) 6

(c) 4

(d) 7

✓ Correct Answer: (a) 5

20. The sum of angles of a triangle is:

(a) 90°

(b) 120°

(c) 180°

(d) 360°

✓ Correct Answer: (c) 180°

21. If $x = 2$, $y = 3$, find $xy + y^2$:

(a) 15

(b) 12

(c) 13

(d) 10

✓ Correct Answer: (a) 15

22. The area of a circle of radius 7 cm is:

(a) 154 cm^2

(b) 144 cm^2

(c) 147 cm^2

(d) 160 cm^2

✓ Correct Answer: (a) 154 cm^2

23. If $\sin^2\theta + \cos^2\theta = ?$

(a) 0

(b) 1

(c) 2

(d) ∞

✓ Correct Answer: (b) 1

24. The slope of a line parallel to x-axis is:

(a) 0

(b) 1

(c) ∞

(d) Undefined

✓ Correct Answer: (a) 0

25. The factorial of 5 (5!) is:

(a) 60

(b) 100

(c) 120

(d) 150

✓ Correct Answer: (c) 120

26. The probability of getting head on tossing a coin is:

(a) $1/4$

(b) $1/2$

(c) $1/3$

(d) 1

✓ Correct Answer: (b) $1/2$

27. The quadratic equation $x^2 - 9 = 0$ has roots:

(a) ± 3

(b) 3, 9

(c) $-9, 9$

(d) ± 9

✓ Correct Answer: (a) ± 3

28. The value of $\cos 60^\circ$ is:

(a) $1/2$

(b) $\sqrt{3}/2$

(c) $\sqrt{2}/2$

(d) 0

✓ Correct Answer: (a) $1/2$

29. If $2x = 10$, then $x = ?$

(a) 2

(b) 3

(c) 4

(d) 5

✓ Correct Answer: (d) 5

30. If a rectangle has length 8 cm and width 6 cm, its area is:

(a) 14 cm^2

(b) 48 cm^2

(c) 28 cm^2

(d) 64 cm^2

✓ Correct Answer: (b) 48 cm^2

31. The value of $\tan 0^\circ$ is:

(a) 1

(b) 0

(c) ∞

(d) -1

✓ Correct Answer: (b) 0

32. The median of 5, 7, 8, 10, 12 is:

(a) 7

(b) 8

(c) 9

(d) 10

✓ Correct Answer: (b) 8

33. If $3^2 + 4^2 = ?$

(a) 7

(b) 9

(c) 12

(d) 25

✓ Correct Answer: (d) 25

34. The circumference of a circle of diameter 14 cm is:

(a) 22 cm

(b) 44 cm

(c) 28 cm

(d) 42 cm

✓ Correct Answer: (b) 44 cm

35. The value of $\sec 60^\circ$ is:

(a) 2

(b) $1/2$

(c) $\sqrt{3}/2$

(d) 1

✓ Correct Answer: (a) 2

36. If $x = 5$, find $2x - 3$:

(a) 10

(b) 9

(c) 7

(d) 5

✓ Correct Answer: (c) 7

37. The sum of interior angles of a quadrilateral is:

(a) 180°

(b) 270°

(c) 360°

(d) 540°

✓ Correct Answer: (c) 360°

38. The value of $\sqrt{64}$ is:

(a) 6

(b) 7

(c) 8

(d) 9

✓ Correct Answer: (c) 8

39. If $A = \{2, 4, 6\}$, then $n(A) = ?$

(a) 2

(b) 3

(c) 4

(d) 6

✓ Correct Answer: (b) 3

40. The slope of a vertical line is:

(a) 0

(b) ∞

(c) 1

(d) -1

✓ Correct Answer: (b) ∞

41. The first prime number is:

(a) 0

(b) 1

(c) 2

(d) 3

✓ Correct Answer: (c) 2

42. The probability of getting 3 on a dice is:

(a) $1/6$

(b) $1/3$

(c) $\frac{1}{2}$

(d) $\frac{1}{4}$

✓ Correct Answer: (a) $\frac{1}{6}$

43. The value of $\cot 45^\circ$ is:

(a) 1

(b) 0

(c) $\sqrt{3}$

(d) ∞

✓ Correct Answer: (a) 1

44. If $\log_{10}x = 2$, then $x = ?$

(a) 10

(b) 20

(c) 100

(d) 1000

✓ Correct Answer: (c) 100

45. The diagonal of a square of side 5 cm is:

(a) $5\sqrt{2}$ cm

(b) 10 cm

(c) 7 cm

(d) 12 cm

✓ Correct Answer: (a) $5\sqrt{2}$ cm

46. If $2^3 = ?$

(a) 4

(b) 6

(c) 8

(d) 10

✓ Correct Answer: (c) 8

47. If a car covers 120 km in 2 hours, its speed is:

(a) 50 km/h

(b) 60 km/h

(c) 70 km/h

(d) 80 km/h

✓ Correct Answer: (b) 60 km/h

48. The mode of 2, 3, 3, 5, 6 is:

(a) 2

(b) 3

(c) 5

(d) 6

✓ Correct Answer: (b) 3

49. If $x - 2 = 8$, then $x = ?$

(a) 6

(b) 8

(c) 10

(d) 12

✓ Correct Answer: (c) 10

50. The area of a triangle with base 10 cm and height 6 cm is:

(a) 20 cm^2

(b) 30 cm^2

(c) 40 cm^2

(d) 60 cm^2

✓ Correct Answer: (b) 30 cm^2

51. The value of $(12 \div 3) + 4$ is:

(a) 6

(b) 7

(c) 8

(d) 9

✓ Correct Answer: (c) 8

52. If $x = 3$, $y = 4$ then $x^2 + y^2 = ?$

(a) 12

(b) 13

(c) 25

(d) 9

✓ Correct Answer: (c) 25

53. The value of $\sin 30^\circ$ is:

(a) 0

(b) $1/2$

(c) $\sqrt{3}/2$

(d) 1

✓ Correct Answer: (b) $1/2$

54. The product of 15×12 is:

(a) 150

(b) 160

(c) 170

(d) 180

✓ Correct Answer: (d) 180

55. The slope of line $y = 2x + 5$ is:

(a) 2

(b) 5

(c) -2

(d) 1

✓ Correct Answer: (a) 2

56. The value of $\tan 60^\circ$ is:

(a) $\sqrt{3}$

(b) 1

(c) 0

(d) 2

✓ Correct Answer: (a) $\sqrt{3}$

57. The average of 2, 4, 6, 8, 10 is:

(a) 4

(b) 5

(c) 6

(d) 7

✓ Correct Answer: (b) 6

58. The LCM of 12 and 18 is:

(a) 36

(b) 72

(c) 48

(d) 24

✓ Correct Answer: (a) 36

59. The HCF of 24 and 36 is:

(a) 6

(b) 12

(c) 18

(d) 24

✓ Correct Answer: (b) 12

60. The square of 15 is:

(a) 125

(b) 150

(c) 200

(d) 225

✓ Correct Answer: (d) 225

61. The value of $\log_{10} 1$ is:

(a) 0

(b) 1

(c) 10

(d) Undefined

✓ Correct Answer: (a) 0

62. The sum of angles of a pentagon is:

(a) 180°

(b) 270°

(c) 360°

(d) 540°

✓ Correct Answer: (d) 540°

63. If $a = 2$, $b = 5$, find $(a + b)^2$:

(a) 49

(b) 35

(c) 25

(d) 36

✓ Correct Answer: (c) 49

64. The cube root of 27 is:

(a) 2

(b) 3

(c) 4

(d) 5

✓ Correct Answer: (b) 3

65. The probability of getting an even number on dice is:

(a) $1/2$

(b) $1/3$

(c) $1/6$

(d) $2/3$

✓ Correct Answer: (a) $1/2$

66. The value of $\cos^2\theta + \sin^2\theta = ?$

(a) 0

(b) 1

(c) 2

(d) ∞

✓ Correct Answer: (b) 1

67. If perimeter of square is 40 cm, its side is:

(a) 8 cm

(b) 10 cm

(c) 12 cm

(d) 15 cm

✓ Correct Answer: (b) 10 cm

68. The solution of equation $x/5 = 4$ is:

(a) 10

(b) 15

(c) 20

(d) 25

✓ Correct Answer: (c) 20

69. The sum of first 20 natural numbers is:

(a) 190

(b) 200

(c) 210

(d) 220

✓ Correct Answer: (c) 210

70. The value of $\sqrt{225}$ is:

(a) 10

(b) 11

(c) 14

(d) 15

✓ Correct Answer: (d) 15

71. If $\sec \theta = 2$, then $\cos \theta = ?$

(a) $1/2$

(b) 2

(c) $\sqrt{3}/2$

(d) 0

✓ Correct Answer: (a) $1/2$

72. The perimeter of rectangle 12 cm by 8 cm is:

(a) 20 cm

(b) 32 cm

(c) 40 cm

(d) 48 cm

✓ Correct Answer: (c) 40 cm

73. If $(x - 2)(x + 2) = ?$

(a) $x^2 - 4$

(b) $x^2 + 4$

(c) $x^2 - 2$

(d) $x^2 + 2$

✓ Correct Answer: (a) $x^2 - 4$

74. The slope of line parallel to y-axis is:

(a) 0

(b) 1

(c) ∞

(d) Undefined

✓ Correct Answer: (c) ∞

75. The value of $\cos 45^\circ$ is:

(a) $1/2$

(b) $\sqrt{2}/2$

(c) $\sqrt{3}/2$

(d) 1

✓ Correct Answer: (b) $\sqrt{2}/2$

76. The mean of 10, 20, 30, 40, 50 is:

(a) 25

(b) 30

(c) 35

(d) 40

✓ Correct Answer: (b) 30

77. The product of $(x + 2)(x - 2)$ is:

(a) $x^2 + 4$

(b) $x^2 - 4$

(c) $x^2 - 2$

(d) $x^2 + 2$

✓ Correct Answer: (b) $x^2 - 4$

78. The solution of equation $2x + 3 = 11$ is:

(a) 4

(b) 5

(c) 6

(d) 7

✓ Correct Answer: (a) 4

79. The mode of 5, 7, 7, 9, 10 is:

(a) 5

(b) 7

(c) 9

(d) 10

✓ Correct Answer: (b) 7

80. The value of $\tan^2 45^\circ + 1 = ?$

(a) 0

(b) 1

(c) 2

(d) ∞

✓ Correct Answer: (c) 2

81. If sum of two numbers is 15 and their product is 56, numbers are:

(a) 7, 8

(b) 6, 9

(c) 5, 10

(d) 4, 11

✓ Correct Answer: (a) 7, 8

82. The circumference of circle with radius 7 cm is:

(a) 22 cm

(b) 44 cm

(c) 66 cm

(d) 77 cm

✓ Correct Answer: (c) 44 cm

83. If $\log_{10} x = 3$, then $x = ?$

(a) 10

(b) 100

(c) 1000

(d) 10000

✓ Correct Answer: (c) 1000

84. The sum of exterior angles of any polygon is:

(a) 90°

(b) 180°

(c) 270°

(d) 360°

✓ Correct Answer: (d) 360°

85. The cube of 4 is:

(a) 16

(b) 64

(c) 81

(d) 125

✓ Correct Answer: (b) 64

86. If $\cos \theta = 0$, then $\theta = ?$

(a) 30°

(b) 60°

(c) 90°

(d) 180°

✓ Correct Answer: (c) 90°

87. The median of 4, 8, 10, 12, 16 is:

(a) 8

(b) 10

(c) 12

(d) 14

✓ Correct Answer: (b) 10

88. The area of triangle with sides 3, 4, 5 is:

(a) 6

(b) 7

(c) 8

(d) 9

✓ Correct Answer: (a) 6

89. If $3x = 27$, then $x = ?$

(a) 7

(b) 8

(c) 9

(d) 10

✓ Correct Answer: (c) 9

90. The value of 5^0 is:

(a) 0

(b) 1

(c) 5

(d) Undefined

✓ Correct Answer: (b) 1

91. The distance formula between (x_1, y_1) and (x_2, y_2) is:

(a) $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

(b) $(x_2 - x_1) + (y_2 - y_1)$

(c) $(x_2 - y_1)^2 + (y_2 - x_1)^2$

(d) None

✓ Correct Answer: (a) $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

92. The probability of getting tail in coin toss is:

(a) $1/4$

(b) $1/2$

(c) $1/3$

(d) $2/3$

✓ Correct Answer: (b) $1/2$

93. The formula of Pythagoras theorem is:

(a) $a^2 + b^2 = c^2$

(b) $a^2 - b^2 = c^2$

(c) $ab = c^2$

(d) $a^2 + b = c^2$

✓ Correct Answer: (a) $a^2 + b^2 = c^2$

94. The value of $\sin 90^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) ∞

✓ Correct Answer: (b) 1

95. The area of square with side 9 cm is:

(a) 18 cm^2

(b) 27 cm^2

(c) 81 cm^2

(d) 90 cm^2

✓ Correct Answer: (c) 81 cm^2

96. The solution of equation $5x - 10 = 0$ is:

(a) 1

(b) 2

(c) 3

(d) 4

✓ Correct Answer: (b) 2

97. The mean of 6, 8, 10, 12, 14 is:

(a) 9

(b) 10

(c) 11

(d) 12

✓ Correct Answer: (b) 10

98. The product of $(x + 1)(x - 1)$ is:

(a) $x^2 + 1$

(b) $x^2 - 1$

(c) $x^2 + 2$

(d) $x^2 - 2$

✓ Correct Answer: (b) $x^2 - 1$

99. The slope of line perpendicular to slope 2 is:

(a) $1/2$

(b) $-1/2$

(c) -2

(d) 0

✓ Correct Answer: (c) -2

100. The value of $\cos^2 45^\circ + \sin^2 45^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $\sqrt{2}$

✓ Correct Answer: (b) 1

101. The derivative of x^2 is:

(a) x

(b) $2x$

(c) x^3

(d) 1

✓ Correct Answer: (b) $2x$

102. The value of $\cos 0^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) ∞

✓ Correct Answer: (b) 1

103. The area of a circle with radius 14 cm is:

(a) 154 cm^2

(b) 308 cm^2

(c) 616 cm^2

(d) 700 cm^2

✓ Correct Answer: (c) 616 cm^2

104. The quadratic equation $x^2 - 5x + 6 = 0$ has roots:

(a) 2, 3

(b) 1, 6

(c) -2, -3

(d) 3, 4

✓ Correct Answer: (a) 2, 3

105. The value of 2^5 is:

(a) 16

(b) 32

(c) 64

(d) 128

✓ Correct Answer: (b) 32

106. The circumference of circle with diameter 14 cm is:

(a) 22 cm

(b) 44 cm

(c) 66 cm

(d) 77 cm

✓ Correct Answer: (b) 44 cm

107. If $a = 4$, $b = 3$, find $(a^2 + b^2)$:

(a) 12

(b) 25

(c) 13

(d) 7

✓ Correct Answer: (b) 25

108. The angle between hands of clock at 3:00 is:

(a) 60°

(b) 90°

(c) 120°

(d) 150°

✓ Correct Answer: (b) 90°

109. The value of $\tan 0^\circ$ is:

(a) 0

(b) 1

(c) ∞

(d) Undefined

✓ Correct Answer: (a) 0

110. The sum of angles of hexagon is:

(a) 540°

(b) 720°

(c) 900°

(d) 1080°

✓ Correct Answer: (b) 720°

111. The cube of 6 is:

(a) 36

(b) 72

(c) 216

(d) 256

✓ Correct Answer: (c) 216

112. If $x = 2$, $y = -3$ then $(x - y) = ?$

(a) -5

(b) -1

(c) 1

(d) 5

✓ Correct Answer: (d) 5

113. The solution of $4x - 12 = 0$ is:

(a) 2

(b) 3

(c) 4

(d) 5

✓ Correct Answer: (b) 3

114. The value of $\sqrt{169}$ is:

(a) 11

(b) 12

(c) 13

(d) 14

✓ Correct Answer: (c) 13

115. If $2x + 3y = 12$ and $y = 2$, find x :

(a) 2

(b) 3

(c) 4

(d) 6

✓ Correct Answer: (a) 3

116. The value of $\cos 90^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) ∞

✓ Correct Answer: (a) 0

117. The perimeter of triangle with sides 6, 8, 10 is:

(a) 20

(b) 22

(c) 24

(d) 26

✓ Correct Answer: (c) 24

118. The slope of line $y = -3x + 7$ is:

(a) -3

(b) 7

(c) 3

(d) 0

✓ Correct Answer: (a) -3

119. The expansion of $(x + 1)^2$ is:

(a) $x^2 + 1$

(b) $x^2 + 2x + 1$

(c) $x^2 - 2x + 1$

(d) $x^2 + x + 1$

✓ Correct Answer: (b) $x^2 + 2x + 1$

120. The area of rectangle with length 15 cm and breadth 8 cm is:

(a) 100 cm^2

(b) 110 cm^2

(c) 120 cm^2

(d) 130 cm^2

✓ Correct Answer: (c) 120 cm^2

121. The mean of first 5 natural numbers is:

- (a) 2
- (b) 2.5
- (c) 3
- (d) 3.5

✓ Correct Answer: (c) 3

122. The slope of line perpendicular to slope $1/2$ is:

- (a) $-1/2$
- (b) -2
- (c) 2
- (d) 0

✓ Correct Answer: (b) -2

123. The square root of 625 is:

- (a) 20
- (b) 25
- (c) 30
- (d) 35

✓ Correct Answer: (b) 25

124. The value of $\sin 60^\circ$ is:

- (a) $1/2$
- (b) $\sqrt{3}/2$
- (c) $\sqrt{2}/2$
- (d) 1

✓ Correct Answer: (b) $\sqrt{3}/2$

125. The formula for area of trapezium is:

- (a) $1/2 \times (\text{sum of parallel sides}) \times \text{height}$
- (b) $\text{base} \times \text{height}$
- (c) $1/2 \times \text{base} \times \text{height}$
- (d) side^2

✓ Correct Answer: (a) $1/2 \times (\text{sum of parallel sides}) \times \text{height}$

126. If $\log_{10} 100 = ?$

- (a) 0
- (b) 1

(c) 2

(d) 3

✓ Correct Answer: (c) 2

127. The discriminant of equation $ax^2 + bx + c = 0$ is:

(a) $b^2 - 4ac$

(b) $a^2 - 4bc$

(c) $ab - 4c$

(d) None

✓ Correct Answer: (a) $b^2 - 4ac$

128. The product of 25×16 is:

(a) 300

(b) 350

(c) 400

(d) 450

✓ Correct Answer: (c) 400

129. The value of $\cos^2 30^\circ + \sin^2 30^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $1/2$

✓ Correct Answer: (b) 1

130. The sum of first 10 even numbers is:

(a) 100

(b) 110

(c) 120

(d) 130

✓ Correct Answer: (a) 110

131. The volume of cube with side 5 cm is:

(a) 100 cm^3

(b) 125 cm^3

(c) 150 cm^3

(d) 200 cm^3

✓ Correct Answer: (b) 125 cm^3

132. The roots of equation $x^2 - 9 = 0$ are:

(a) ± 2

(b) ± 3

(c) ± 4

(d) ± 5

✓ Correct Answer: (b) ± 3

133. The formula for area of parallelogram is:

(a) base $\times$ height

(b) $\frac{1}{2} \times$ base $\times$ height

(c) length $\times$ breadth

(d) side²

✓ Correct Answer: (a) base $\times$ height

134. If $a = 3$, $b = 4$, find $(a + b)^2 - (a - b)^2$:

(a) 12

(b) 24

(c) 36

(d) 48

✓ Correct Answer: (b) 24

135. The value of $\tan 45^\circ$ is:

(a) 0

(b) 1

(c) $\sqrt{3}$

(d) ∞

✓ Correct Answer: (b) 1

136. The perimeter of square with side 12 cm is:

(a) 36 cm

(b) 42 cm

(c) 44 cm

(d) 48 cm

✓ Correct Answer: (d) 48 cm

137. The value of $7!$ (factorial 7) is:

(a) 720

(b) 2520

(c) 5040

(d) 10080

✓ Correct Answer: (c) 5040

138. The slope of horizontal line is:

(a) 0

(b) 1

(c) ∞

(d) Undefined

✓ Correct Answer: (a) 0

139. The arithmetic mean of 8 and 12 is:

(a) 8

(b) 9

(c) 10

(d) 11

✓ Correct Answer: (c) 10

140. The value of $\sqrt{2} \times \sqrt{8}$ is:

(a) 2

(b) 4

(c) $\sqrt{16}$

(d) 8

✓ Correct Answer: (b) 4

141. The number of diagonals in a hexagon is:

(a) 6

(b) 9

(c) 12

(d) 15

✓ Correct Answer: (b) 9

142. If $\sin \theta = 1$, then $\theta = ?$

(a) 30°

(b) 60°

(c) 90°

(d) 180°

✓ Correct Answer: (c) 90°

143. The roots of equation $x^2 - 16 = 0$ are:

(a) ± 2

(b) ± 3

(c) ± 4

(d) ± 5

✓ Correct Answer: (c) ± 4

144. The sum of first 50 natural numbers is:

(a) 1225

(b) 1250

(c) 1275

(d) 1300

✓ Correct Answer: (c) 1275

145. The value of $\cos 60^\circ$ is:

(a) $1/2$

(b) $\sqrt{3}/2$

(c) $\sqrt{2}/2$

(d) 1

✓ Correct Answer: (a) $1/2$

146. The probability of getting 3 on a dice is:

(a) $1/2$

(b) $1/3$

(c) $1/6$

(d) $1/4$

✓ Correct Answer: (c) $1/6$

147. The formula for volume of sphere is:

(a) $\frac{4}{3} \pi r^3$

(b) πr^2

(c) $2\pi r$

(d) $\pi r^2 h$

✓ Correct Answer: (a) $\frac{4}{3} \pi r^3$

148. The value of 11^2 is:

(a) 100

(b) 111

(c) 121

(d) 144

✓ Correct Answer: (c) 121

149. The mode of 2, 4, 4, 6, 8, 8, 8, 10 is:

(a) 4

(b) 6

(c) 8

(d) 10

✓ Correct Answer: (c) 8

150. The value of $\cos^2 60^\circ + \sin^2 60^\circ$ is:

(a) 0

(b) 1

- (c) 2
- (d) $1/2$

✓ Correct Answer: (b) 1

151. The value of $\sin 30^\circ$ is:

- (a) 0
- (b) $1/2$
- (c) $\sqrt{3}/2$
- (d) 1

✓ Correct Answer: (b) $1/2$

152. If $5x = 20$, then $x = ?$

- (a) 2
- (b) 3
- (c) 4
- (d) 5

✓ Correct Answer: (c) 4

153. The length of diagonal of square with side 10 cm is:

- (a) 10 cm
- (b) $\sqrt{2} \times 10$ cm
- (c) 20 cm
- (d) $5\sqrt{2}$ cm

✓ Correct Answer: (b) $\sqrt{2} \times 10$ cm

154. The value of $\log_{10} 1$ is:

- (a) 0
- (b) 1
- (c) ∞
- (d) Undefined

✓ Correct Answer: (a) 0

155. The sum of first 5 odd numbers is:

- (a) 15
- (b) 20
- (c) 25
- (d) 30

✓ Correct Answer: (c) 25

156. The perimeter of rectangle with length 12 cm and breadth 8 cm is:

- (a) 20 cm
- (b) 30 cm

(c) 36 cm

(d) 40 cm

✓ Correct Answer: (d) 40 cm

157. The value of $\cos 45^\circ$ is:

(a) $1/2$

(b) $\sqrt{2}/2$

(c) $\sqrt{3}/2$

(d) 1

✓ Correct Answer: (b) $\sqrt{2}/2$

158. The solution of $3x - 9 = 0$ is:

(a) 1

(b) 2

(c) 3

(d) 4

✓ Correct Answer: (c) 3

159. The formula for volume of cone is:

(a) $\pi r^2 h$

(b) $1/3 \pi r^2 h$

(c) $2\pi r h$

(d) $4/3 \pi r^3$

✓ Correct Answer: (b) $1/3 \pi r^2 h$

160. The value of $3^2 + 4^2$ is:

(a) 7

(b) 12

(c) 25

(d) 49

✓ Correct Answer: (c) 25

161. If $\sin^2 \theta + \cos^2 \theta = ?$

(a) 0

(b) 1

(c) 2

(d) Undefined

✓ Correct Answer: (b) 1

162. The square of 15 is:

(a) 200

(b) 215

(c) 225

(d) 250

✓ Correct Answer: (c) 225

163. The slope of vertical line is:

(a) 0

(b) Undefined

(c) 1

(d) ∞

✓ Correct Answer: (b) Undefined

164. The mean of 10, 20, 30 is:

(a) 15

(b) 20

(c) 25

(d) 30

✓ Correct Answer: (b) 20

165. The value of $\tan 60^\circ$ is:

(a) $\sqrt{3}$

(b) $1/\sqrt{3}$

(c) 1

(d) 0

✓ Correct Answer: (a) $\sqrt{3}$

166. The product of 12×15 is:

(a) 160

(b) 170

(c) 180

(d) 200

✓ Correct Answer: (c) 180

167. The expansion of $(a - b)^2$ is:

(a) $a^2 - b^2$

(b) $a^2 - 2ab + b^2$

(c) $a^2 + 2ab + b^2$

(d) $a^2 - ab + b^2$

✓ Correct Answer: (b) $a^2 - 2ab + b^2$

168. The sum of interior angles of pentagon is:

(a) 360°

(b) 540°

(c) 720°

(d) 900°

✓ Correct Answer: (b) 540°

169. The value of $\sqrt{81}$ is:

(a) 7

(b) 8

(c) 9

(d) 10

✓ Correct Answer: (c) 9

170. The roots of $x^2 + 5x + 6 = 0$ are:

(a) $-2, -3$

(b) 2, 3

(c) $-1, -6$

(d) 1, 6

✓ Correct Answer: (a) $-2, -3$

171. The value of $\cos 180^\circ$ is:

(a) -1

(b) 0

(c) 1

(d) Undefined

✓ Correct Answer: (a) -1

172. The formula for distance in uniform acceleration is:

(a) $s = ut$

(b) $s = ut + \frac{1}{2} at^2$

(c) $s = v^2 - u^2$

(d) $s = vt$

✓ Correct Answer: (b) $s = ut + \frac{1}{2} at^2$

173. The sum of first 20 natural numbers is:

(a) 190

(b) 200

(c) 210

(d) 220

✓ Correct Answer: (c) 210

174. The area of triangle with base 10 cm and height 12 cm is:

(a) 50 cm^2

(b) 60 cm^2

(c) 100 cm^2

(d) 120 cm^2

✓ Correct Answer: (b) 60 cm^2

175. The value of $\tan 90^\circ$ is:

(a) 0

(b) 1

(c) Undefined

(d) ∞

✓ Correct Answer: (c) Undefined

176. The solution of $7x = 35$ is:

(a) 4

(b) 5

(c) 6

(d) 7

✓ Correct Answer: (b) 5

177. The perimeter of square with side 20 cm is:

(a) 60 cm

(b) 70 cm

(c) 80 cm

(d) 100 cm

✓ Correct Answer: (c) 80 cm

178. The cube root of 64 is:

(a) 2

(b) 4

(c) 6

(d) 8

✓ Correct Answer: (b) 4

179. The value of $\cos^2 45^\circ + \sin^2 45^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $1/2$

✓ Correct Answer: (b) 1

180. The mode of 5, 7, 7, 9, 10 is:

(a) 5

(b) 7

- (c) 9
- (d) 10

✓ Correct Answer: (b) 7

181. The formula for circumference of circle is:

- (a) πr^2
- (b) $2\pi r$
- (c) πd^2
- (d) πr^3

✓ Correct Answer: (b) $2\pi r$

182. The sum of exterior angles of any polygon is:

- (a) 90°
- (b) 180°
- (c) 270°
- (d) 360°

✓ Correct Answer: (d) 360°

183. The value of $\log_{10} 1000$ is:

- (a) 1
- (b) 2
- (c) 3
- (d) 4

✓ Correct Answer: (c) 3

184. The mean of 6, 8, 10, 12 is:

- (a) 8
- (b) 9
- (c) 10
- (d) 11

✓ Correct Answer: (b) 9

185. The value of $\sin 90^\circ$ is:

- (a) 0
- (b) 1
- (c) -1
- (d) ∞

✓ Correct Answer: (b) 1

186. The solution of $x^2 - 25 = 0$ is:

- (a) ± 3

(b) ± 4

(c) ± 5

(d) ± 6

✓ Correct Answer: (c) ± 5

187. The area of square with diagonal $10\sqrt{2}$ cm is:

(a) 50 cm^2

(b) 100 cm^2

(c) 200 cm^2

(d) 400 cm^2

✓ Correct Answer: (c) 200 cm^2

188. The slope of line parallel to x-axis is:

(a) 0

(b) 1

(c) ∞

(d) Undefined

✓ Correct Answer: (a) 0

189. The probability of getting a head on tossing a coin is:

(a) $1/4$

(b) $1/3$

(c) $1/2$

(d) 1

✓ Correct Answer: (c) $1/2$

190. The cube of 8 is:

(a) 64

(b) 128

(c) 256

(d) 512

✓ Correct Answer: (d) 512

191. The formula for Pythagoras theorem is:

(a) $a^2 + b^2 = c^2$

(b) $a^2 - b^2 = c^2$

(c) $a + b = c$

(d) $a - b = c$

✓ Correct Answer: (a) $a^2 + b^2 = c^2$

192. The sum of first 15 even numbers is:

(a) 210

(b) 220

(c) 230

(d) 240

✓ Correct Answer: (a) 240

193. The value of $\cos 270^\circ$ is:

(a) -1

(b) 0

(c) 1

(d) Undefined

✓ Correct Answer: (b) 0

194. The solution of $2x + 5 = 15$ is:

(a) 3

(b) 4

(c) 5

(d) 6

✓ Correct Answer: (c) 5

195. The volume of cylinder is:

(a) $\pi r^2 h$

(b) $2\pi r h$

(c) $\frac{1}{3} \pi r^2 h$

(d) $\frac{4}{3} \pi r^3$

✓ Correct Answer: (a) $\pi r^2 h$

196. The value of $\tan 45^\circ$ is:

(a) 0

(b) 1

(c) $\sqrt{3}$

(d) ∞

✓ Correct Answer: (b) 1

197. The mean of 4, 8, 12, 16, 20 is:

(a) 10

(b) 12

(c) 14

(d) 16

✓ Correct Answer: (b) 12

198. The expansion of $(x + y)(x - y)$ is:

(a) $x^2 + y^2$

(b) $x^2 - y^2$

(c) $x^2 - 2xy + y^2$

(d) $x^2 + 2xy + y^2$

✓ Correct Answer: (b) $x^2 - y^2$

199. The square root of 400 is:

(a) 18

(b) 19

(c) 20

(d) 21

✓ Correct Answer: (c) 20

200. The value of $\sin 0^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) ∞

✓ Correct Answer: (a) 0

201. The sum of first 100 natural numbers is:

(a) 4950

(b) 5000

(c) 5050

(d) 5100

✓ Correct Answer: (c) 5050

202. The value of $\cos 0^\circ \times \sin 90^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) ∞

✓ Correct Answer: (b) 1

203. If $x = 5$, then value of $2x^2 + 3x$ is:

(a) 40

(b) 50

(c) 65

(d) 70

✓ Correct Answer: (c) 65

204. The solution of $9x = 81$ is:

(a) 7

(b) 8

(c) 9

(d) 10

✓ Correct Answer: (c) 9

205. The perimeter of circle with radius 7 cm is:

(a) 22 cm

(b) 33 cm

(c) 44 cm

(d) 66 cm

✓ Correct Answer: (c) 44 cm

206. The value of $\tan^2 45^\circ + 1$ is:

(a) 0

(b) 1

(c) 2

(d) ∞

✓ Correct Answer: (c) 2

207. The volume of cube with edge 6 cm is:

(a) 36 cm^3

(b) 72 cm^3

(c) 126 cm^3

(d) 216 cm^3

✓ Correct Answer: (d) 216 cm^3

208. The sum of angles of octagon is:

(a) 720°

(b) 900°

(c) 1080°

(d) 1260°

✓ Correct Answer: (c) 1080°

209. The value of $\log_{10} 0.01$ is:

(a) -2

(b) -1

(c) 1

(d) 2

✓ Correct Answer: (a) -2

210. The mean of 2, 4, 6, 8, 10 is:

(a) 4

(b) 5

(c) 6

(d) 7

✓ Correct Answer: (b) 6

211. The expansion of $(x + 2)^2$ is:

(a) $x^2 + 2x + 4$

(b) $x^2 + 4x + 4$

(c) $x^2 + 2x + 2$

(d) $x^2 + 4x + 2$

✓ Correct Answer: (b) $x^2 + 4x + 4$

212. The roots of equation $x^2 - 4x + 3 = 0$ are:

(a) 1, 3

(b) -1, -3

(c) 2, 2

(d) 3, 4

✓ Correct Answer: (a) 1, 3

213. The value of $\sin^2 30^\circ + \cos^2 30^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $1/2$

✓ Correct Answer: (b) 1

214. The formula for surface area of sphere is:

(a) $2\pi r^2$

(b) $3\pi r^2$

(c) $4\pi r^2$

(d) πr^3

✓ Correct Answer: (c) $4\pi r^2$

215. The probability of getting an even number on a dice is:

(a) $1/2$

(b) $1/3$

(c) $1/4$

(d) $1/6$

✓ Correct Answer: (a) $1/2$

216. The square of 25 is:

(a) 500

(b) 525

(c) 625

(d) 725

✓ Correct Answer: (c) 625

217. If $x + y = 10$, and $x - y = 4$, then $x = ?$

(a) 2

(b) 3

(c) 7

(d) 10

✓ Correct Answer: (c) 7

218. The value of $\cos 90^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) ∞

✓ Correct Answer: (a) 0

219. The formula for area of rhombus is:

(a) base $\times$ height

(b) $\frac{1}{2} \times d_1 \times d_2$

(c) side²

(d) πr^2

✓ Correct Answer: (b) $\frac{1}{2} \times d_1 \times d_2$

220. The mode of 1, 2, 2, 3, 4, 4, 4, 5 is:

(a) 2

(b) 3

(c) 4

(d) 5

✓ Correct Answer: (c) 4

221. The sum of interior angles of decagon is:

(a) 1080°

(b) 1260°

(c) 1440°

(d) 1620°

✓ Correct Answer: (c) 1440°

222. The cube root of 1000 is:

(a) 5

(b) 8

- (c) 9
- (d) 10

✓ Correct Answer: (d) 10

223. The solution of $2x - 7 = 9$ is:

- (a) 6
- (b) 7
- (c) 8
- (d) 9

✓ Correct Answer: (c) 8

224. The value of $\tan 30^\circ$ is:

- (a) 0
- (b) 1
- (c) $1/\sqrt{3}$
- (d) $\sqrt{3}$

✓ Correct Answer: (c) $1/\sqrt{3}$

225. The formula for volume of rectangular prism is:

- (a) $l \times w$
- (b) $l \times w \times h$
- (c) $2lw + 2lh$
- (d) $\frac{4}{3} \pi r^3$

✓ Correct Answer: (b) $l \times w \times h$

226. The square of 18 is:

- (a) 324
- (b) 342
- (c) 356
- (d) 400

✓ Correct Answer: (a) 324

227. If the probability of event is 0, it means:

- (a) Certain event
- (b) Impossible event
- (c) Sure event
- (d) Equal chance

✓ Correct Answer: (b) Impossible event

228. The slope of line $y = 2x + 5$ is:

- (a) -2
- (b) 2

(c) 5

(d) 0

✓ Correct Answer: (b) 2

229. The sum of first 20 odd numbers is:

(a) 200

(b) 210

(c) 400

(d) 420

✓ Correct Answer: (b) 400

230. The value of $\cos^2 60^\circ + \sin^2 60^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $1/2$

✓ Correct Answer: (b) 1

231. The expansion of $(x - 3)(x + 3)$ is:

(a) $x^2 - 9$

(b) $x^2 + 9$

(c) $x^2 - 6x + 9$

(d) $x^2 + 3x - 9$

✓ Correct Answer: (a) $x^2 - 9$

232. The probability of getting “tail” on tossing a coin is:

(a) $1/2$

(b) $1/3$

(c) $1/4$

(d) $1/6$

✓ Correct Answer: (a) $1/2$

233. The value of $\sqrt{144}$ is:

(a) 10

(b) 11

(c) 12

(d) 13

✓ Correct Answer: (c) 12

234. The mean of 5, 10, 15, 20 is:

(a) 10

(b) 12.5

(c) 15

(d) 20

✓ Correct Answer: (b) 12.5

235. The value of $\sin 45^\circ$ is:

(a) $1/2$

(b) $\sqrt{2}/2$

(c) $\sqrt{3}/2$

(d) 1

✓ Correct Answer: (b) $\sqrt{2}/2$

236. The solution of $4x + 8 = 0$ is:

(a) -1

(b) -2

(c) -3

(d) -4

✓ Correct Answer: (b) -2

237. The perimeter of triangle with sides 7 cm, 8 cm, 9 cm is:

(a) 20 cm

(b) 22 cm

(c) 24 cm

(d) 26 cm

✓ Correct Answer: (c) 24 cm

238. The value of $\log_{10} 10^4$ is:

(a) 2

(b) 3

(c) 4

(d) 5

✓ Correct Answer: (c) 4

239. The sum of first 50 even numbers is:

(a) 2450

(b) 2500

(c) 2550

(d) 2600

✓ Correct Answer: (b) 2550

240. The cube of 9 is:

(a) 481

(b) 729

(c) 900

(d) 999

✓ Correct Answer: (b) 729

241. The formula for area of equilateral triangle is:

(a) $\frac{1}{2} \times \text{base} \times \text{height}$

(b) $\frac{\sqrt{3}}{4} \times a^2$

(c) a^2

(d) πr^2

✓ Correct Answer: (b) $\frac{\sqrt{3}}{4} \times a^2$

242. The value of $\cos 270^\circ$ is:

(a) -1

(b) 0

(c) 1

(d) Undefined

✓ Correct Answer: (b) 0

243. The solution of equation $x^2 - x - 6 = 0$ is:

(a) $-2, 3$

(b) $2, -3$

(c) $-1, 6$

(d) $1, -6$

✓ Correct Answer: (a) $-2, 3$

244. The sum of first 15 odd numbers is:

(a) 200

(b) 210

(c) 225

(d) 240

✓ Correct Answer: (c) 225

245. The value of $\tan^2 30^\circ + 1$ is:

(a) 2

(b) 3

(c) $\frac{4}{3}$

(d) ∞

✓ Correct Answer: (c) $\frac{4}{3}$

246. The median of 3, 7, 9, 11, 15 is:

(a) 7

- (b) 9
- (c) 11
- (d) 15

✓ Correct Answer: (b) 9

247. The formula for volume of hemisphere is:

- (a) $\frac{2}{3} \pi r^3$
- (b) $\frac{1}{3} \pi r^3$
- (c) $\frac{4}{3} \pi r^3$
- (d) $\pi r^2 h$

✓ Correct Answer: (a) $\frac{2}{3} \pi r^3$

248. The value of $\sin 270^\circ$ is:

- (a) -1
- (b) 0
- (c) 1
- (d) Undefined

✓ Correct Answer: (a) -1

249. The solution of $3x + 4 = 10$ is:

- (a) 1
- (b) 2
- (c) 3
- (d) 4

✓ Correct Answer: (b) 2

250. The value of $\cos^2 0^\circ + \sin^2 0^\circ$ is:

- (a) 0
- (b) 1
- (c) 2
- (d) ∞

✓ Correct Answer: (b) 1

251. The value of $\sqrt{169}$ is:

- (a) 11
- (b) 12
- (c) 13
- (d) 14

✓ Correct Answer: (c) 13

252. The perimeter of a square of side 9 cm is:

- (a) 18 cm
- (b) 27 cm
- (c) 36 cm

(d) 45 cm

✓ Correct Answer: (c) 36 cm

253. The value of $\tan 90^\circ$ is:

(a) 0

(b) 1

(c) Undefined

(d) -1

✓ Correct Answer: (c) Undefined

254. The expansion of $(x - 5)^2$ is:

(a) $x^2 - 5x + 25$

(b) $x^2 - 10x + 25$

(c) $x^2 - 25$

(d) $x^2 - 15x + 25$

✓ Correct Answer: (b) $x^2 - 10x + 25$

255. The mean of 4, 6, 8, 10, 12 is:

(a) 6

(b) 8

(c) 9

(d) 10

✓ Correct Answer: (b) 8

256. The cube of 11 is:

(a) 121

(b) 1331

(c) 1441

(d) 1551

✓ Correct Answer: (b) 1331

257. The sum of first 30 natural numbers is:

(a) 435

(b) 450

(c) 465

(d) 500

✓ Correct Answer: (c) 465

258. The value of $\sin 60^\circ$ is:

(a) $1/2$

(b) $\sqrt{3}/2$

(c) $\sqrt{2}/2$

(d) 1

✓ Correct Answer: (b) $\sqrt{3}/2$

259. The mode of 2, 2, 3, 5, 5, 5, 7 is:

(a) 2

(b) 3

(c) 5

(d) 7

✓ Correct Answer: (c) 5

260. The volume of cone is:

(a) $\pi r^2 h$

(b) $1/3 \pi r^2 h$

(c) $2/3 \pi r^2 h$

(d) $4/3 \pi r^3$

✓ Correct Answer: (b) $1/3 \pi r^2 h$

261. The value of $\cos 180^\circ$ is:

(a) -1

(b) 0

(c) 1

(d) Undefined

✓ Correct Answer: (a) -1

262. The sum of interior angles of a pentagon is:

(a) 360°

(b) 540°

(c) 720°

(d) 900°

✓ Correct Answer: (b) 540°

263. The square of 22 is:

(a) 464

(b) 484

(c) 504

(d) 512

✓ Correct Answer: (b) 484

264. The probability of getting an odd number on a dice is:

(a) $1/2$

(b) $1/3$

(c) $1/4$

(d) $\frac{1}{6}$

✓ Correct Answer: (a) $\frac{1}{2}$

265. The value of $\cos^2 45^\circ + \sin^2 45^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $\frac{1}{2}$

✓ Correct Answer: (b) 1

266. The value of $\log_{10} 1$ is:

(a) -1

(b) 0

(c) 1

(d) 10

✓ Correct Answer: (b) 0

267. If $5x = 45$, then $x = ?$

(a) 7

(b) 8

(c) 9

(d) 10

✓ Correct Answer: (c) 9

268. The surface area of cube with side 4 cm is:

(a) 48 cm^2

(b) 64 cm^2

(c) 72 cm^2

(d) 96 cm^2

✓ Correct Answer: (d) 96 cm^2

269. The median of 1, 3, 5, 7, 9, 11 is:

(a) 5

(b) 6

(c) 7

(d) 8

✓ Correct Answer: (b) 6

270. The value of $\sin 0^\circ$ is:

(a) 0

(b) 1

(c) -1

(d) Undefined

✓ Correct Answer: (a) 0

271. The solution of $7x - 14 = 0$ is:

(a) 1

(b) 2

(c) 3

(d) 4

✓ Correct Answer: (b) 2

272. The diagonal of a square of side 10 cm is:

(a) $10\sqrt{2}$ cm

(b) 15 cm

(c) 20 cm

(d) 25 cm

✓ Correct Answer: (a) $10\sqrt{2}$ cm

273. The sum of first 5 prime numbers is:

(a) 28

(b) 29

(c) 30

(d) 31

✓ Correct Answer: (b) 29

274. The slope of line parallel to x-axis is:

(a) 0

(b) 1

(c) Undefined

(d) -1

✓ Correct Answer: (a) 0

275. The slope of line parallel to y-axis is:

(a) 0

(b) 1

(c) Undefined

(d) -1

✓ Correct Answer: (c) Undefined

276. The square root of 256 is:

(a) 14

(b) 15

(c) 16

(d) 18

✓ Correct Answer: (c) 16

277. The area of a triangle with base 12 cm and height 8 cm is:

(a) 24 cm^2

(b) 36 cm^2

(c) 48 cm^2

(d) 96 cm^2

✓ Correct Answer: (c) 48 cm^2

278. The value of $\tan 45^\circ$ is:

(a) 0

(b) 1

(c) $\sqrt{3}$

(d) $1/\sqrt{3}$

✓ Correct Answer: (b) 1

279. The mean of first 10 natural numbers is:

(a) 5

(b) 5.5

(c) 6

(d) 6.5

✓ Correct Answer: (b) 5.5

280. The formula for circumference of a circle is:

(a) $2\pi r$

(b) πr^2

(c) $4\pi r^2$

(d) πd^2

✓ Correct Answer: (a) $2\pi r$

281. The value of $\cos^2 60^\circ + \sin^2 60^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $1/2$

✓ Correct Answer: (b) 1

282. If $2x + 5 = 11$, then $x = ?$

(a) 2

(b) 3

(c) 4

(d) 5

✓ Correct Answer: (b) 3

283. The expansion of $(x + y)(x - y)$ is:

(a) $x^2 - y^2$

(b) $x^2 + y^2$

(c) $x^2 - 2y^2$

(d) $x^2 + 2xy - y^2$

✓ Correct Answer: (a) $x^2 - y^2$

284. The sum of first 25 even numbers is:

(a) 600

(b) 625

(c) 650

(d) 675

✓ Correct Answer: (c) 650

285. The cube root of 27 is:

(a) 2

(b) 3

(c) 4

(d) 5

✓ Correct Answer: (b) 3

286. The value of $\sin^2 90^\circ + \cos^2 90^\circ$ is:

(a) 0

(b) 1

(c) 2

(d) $1/2$

✓ Correct Answer: (b) 1

287. The volume of sphere of radius 3 cm is:

(a) $36\pi \text{ cm}^3$

(b) $81\pi \text{ cm}^3$

(c) $108\pi \text{ cm}^3$

(d) 113.1 cm^3

✓ Correct Answer: (c) $113.1 \text{ cm}^3 (\approx 4/3 \pi r^3)$

288. The probability of getting a “red card” from a deck of 52 cards is:

(a) $1/2$

(b) $1/3$

(c) $\frac{1}{4}$

(d) $\frac{1}{6}$

✓ Correct Answer: (a) $\frac{1}{2}$

289. The value of $\tan 0^\circ$ is:

(a) 0

(b) 1

(c) Undefined

(d) ∞

✓ Correct Answer: (a) 0

290. The solution of equation $x^2 = 49$ is:

(a) 6, -6

(b) 7, -7

(c) 8, -8

(d) 9, -9

✓ Correct Answer: (b) 7, -7

291. The area of circle with radius 14 cm is:

(a) 308 cm^2

(b) 616 cm^2

(c) 700 cm^2

(d) 728 cm^2

✓ Correct Answer: (b) 616 cm^2

292. The square of 35 is:

(a) 1125

(b) 1225

(c) 1325

(d) 1425

✓ Correct Answer: (b) 1225

293. The sum of angles of hexagon is:

(a) 540°

(b) 720°

(c) 900°

(d) 1080°

✓ Correct Answer: (b) 720°

294. The value of $\log_{10} 100$ is:

(a) 1

(b) 2

(c) 3

(d) 4

✓ Correct Answer: (b) 2

295. The mean of 20, 25, 30, 35, 40 is:

(a) 25

(b) 28

(c) 30

(d) 32

✓ Correct Answer: (c) 30

296. The cube of 6 is:

(a) 126

(b) 206

(c) 216

(d) 226

✓ Correct Answer: (c) 216

297. The diagonal of a rectangle of sides 9 cm and 12 cm is:

(a) 14 cm

(b) 15 cm

(c) 16 cm

(d) 17 cm

✓ Correct Answer: (b) 15 cm

298. The value of $\cos 60^\circ$ is:

(a) 0

(b) $1/2$

(c) $\sqrt{2}/2$

(d) $\sqrt{3}/2$

✓ Correct Answer: (b) $1/2$

299. The probability of getting “head” when tossing two coins is:

(a) $1/4$

(b) $1/2$

(c) $3/4$

(d) 1

✓ Correct Answer: (b) $1/2$

300. The solution of $2x^2 - 8 = 0$ is:

(a) 1, -1

(b) 2, -2

(c) $\sqrt{2}, -\sqrt{2}$

(d) $4, -4$

✓ Correct Answer: (b) $2, -2$

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