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Score: 52/63 (82.54%)

Code: 0477

1. What is the value of $14x + 3y + 25x + 2y$?

- A) $17x + 27y$ B) $16x + 28y$
C) $39x + 5y$ (Correct) D) $44xy$

2. What is the multiplication value of $5a^2 \times 8a^5 \times b^3$?

- A) $40a^7 \times b^4$ B) $40a^3 \times b^2$
 C) $40a^4 \times b^7$ (Incorrect) D) $40a^2 \times b^3$

3. What is the simplified value of $(3x + 15) / (5x + 25)$?

- A) $(5/3)$ **B) $(3/5)$ (Correct)**
 C) $(-5/3)$ D) $(-3/5)$

4. What is the value of x if $13 + x = 20$?

- A) 8 **B) 7 (Correct)**
 C) 9 D) 13

5. What is the value of x, if $x \times (120) = 960$?

- A) 6 B) 7
C) 8 (Correct) D) 10

6. What is the formula for $a^m \times a^n$?

- A) a^{m+n} (Correct)** B) a^{m-n}
 C) a^{mn} D) $n \cdot a^m$

7. Which is the formula for a^m / a^n ?

- A) a^{m+n} **B) a^{m-n} (Correct)**
 C) a^{mn} D) $(a^m) \times (a^n)$ (Incorrect)

8. What is the value of any number raised to the power of 0?

- C) (-1) **B) 1 (Correct)**
 D) Alpha (?)

9. Which is equal to $(a^m)^n$?

- A) a^{m-n} (Incorrect) B) a^{m+n}
 C) $a^{m/n}$ **D) a^{mn} (Correct)**

10. What is the expanded form of $(a+b)^2$?

- A) $a^2 + 2ab + b^2$ (Correct)** B) $a^2 - 2ab + b^2$
 C) $a^2 + 2ab - b^2$ D) $(-a)^2 - 2ab + b^2$

11. What is the formula for $(a-b)^2$?

- A) $a^2 - 2ab + b^2$ (Incorrect)** B) $a^2 + 2ab + b^2$
 C) $a^2 - 2ab - b^2$ D) $(-a)^2 - 2ab - b^2$

12. Which is equal to $(a+b)^2 - (a-b)^2$?

- A) $2ab$ B) $3ab$
C) $4ab$ (Correct) D) $5ab$

13. What is the value of $a^2 \times a^3 \times a^4$?

- A) a^7 B) a^8 (Incorrect)
 C) a^9 **D) a^{10} (Correct)**

14. What is the value of $(a^5)^7$?

- A) a^{35} (Correct)** B) a^{22} (Incorrect)
 C) $a^{2 \times 7}$ D) a^{22}

15. What is the value of 625^0 ?

- C) 525 **B) 1 (Correct)**
 D) 25

16. What is the value of $1 / a^{-5}$?

- A) a^5 (Correct)** B) a^{-5}
 C) $5a$ D) $(-5a)$

17. What is the value of $5x^4 / 5x^3$?

- A) $5x$ B) $5x^2$
C) x (Correct) D) $5x^4 / x^3$

18. What is the subtracted value of $3x - 4x^2$?

+2y² from 4y²-2x + 8x²?

A) 2y² - 5x + 12x² (Correct)

B) 2y² + 5x - 12x²

C) 2y² - 5x - 12x²

D) (-2y²-5x + 12x²)

19. What is the value of adding (5x+2y), (4x - 7z) and (15z - 3y)?

A) 9x - y + 8z (Correct)

B) x - 9y + 8z

C) x + 9y + 8z

D) 9x + y - 8z

20. What is the value of 12x³y² / 4x²y?

A) 8xy

B) 16xy

C) 3xy (Correct)

D) (-3xy)

21. What is the value of x, if 3(2x - 4) = -4x + 28?

A) 4 (Correct)

B) 8

C) 6

D) 12

22. What is the value of x if (x + 2) / 2 = 19?

A) 38

B) 33

C) 35

D) 36 (Correct)

23. What is the value of x if 11x+4=37?

A) 2

B) 3 (Correct)

C) 4

D) 5

24. Which is the expansion of a³ + b³?

A) (a-b)(a² + b² - ab)

B) (a+b)(a² + b² - ab) (Correct)

C) a³ + b³ + 3ab (a+b)

D) a³ - b³ + 3ab (a-b)

25. What is the expansion of (a+b+c)²?

A) a² + b² + c² + 2(ab + bc + ca) (Correct)

B) a² + b² + c² - 2ab + 2bc + 2ca

C) a² + b² + c² + 2ab - 2bc + 2ca

D) a² - b² + c² + 2ab + 2bc + 2ca

26. Which is expanded form of a³-b³?

A) (a+b)(a² - b² - ab)

B) (a-b)(a² + b² + ab) (Correct)

C) (a-b)(a² - b² - ab)

D) (a-b)(a² - b² + ab)

27. What is the value of (6³) / ((-3)³)?

A) 8

B) (-8) (Correct)

C) 27

D) (-27)

28. What is the value of x²-y² if (x+y) = 9, (x - y) = 4?

A) 13

B) 65

C) 36 (Correct)

D) 46

29. What is the value of 'X' if x - y = 6 and x + y = 8?

A) 5

B) 6

C) 7 (Correct)

D) 14

30. What is the value of a²+b² if a+b=9 and ab = 20?

A) 121

B) (-121)

C) 41 (Correct)

D) (-41)

31. What is the value of ab if (a+b)²=36 (a-b)²=24?

A) 6

B) 4 (Incorrect)

C) 3

D) 2

32. What is the value of x³+3y²x² if x=3, y=2?

A) 135 (Correct)

B) 81

C) 54

D) 63

33. What are the three consecutive numbers if their sum is 42?

A) 11,12,13

B) 12,13,14

C) 13,14,15 (Correct)

D) 14,15,16

34. What is the name called biggest chord of the circle?

A) Arc

B) Diameter (Correct)

C) Radius

D) Diagonal

35. What is the length of arc of a sector, whose perimeter is 64.8cm and radius is 12.4 cm?

A) 40 cm (Correct)

B) 45 cm

C) 40.8 cm

D) 42 cm

36. What is the length of arc of the sector whose radius is 15

cm and the intended angle is 30 Degree?

- A) **7.85 cm (Correct)** B) 7.25 cm
C) 6.75 cm D) 6.85 cm

37. What is the area of the sector, if the diameter is 12 cm and the angle is 60 Degree?

- A) 18.0 cm² B) 17.75 cm²
C) 19.00 cm² **D) 18.84 cm² (Correct)**

38. What is the area of the circle, if the circumference of the circle is 44cm?

- A) 128 cm² B) 130 cm²
C) 154 cm² (Correct) D) 129 cm²

39. What is the radius of the circle if the angle of sector is 90 Degree and the area of the circle is 196 cm²?

- A) **15.77 cm** B) 15 cm
C) 14.85 cm D) 14.95 cm (Incorrect)

40. What is the area of the sector, whose diameter is 40 mm and angle is 120 Degree?

- A) **418.66 mm²** B) 400.50 mm²
C) 415.5 mm² D) 416.6 mm² (Incorrect)

41. What is the length of arc of a sector, whose radius is 15 cm and angle is 40 Degree?

- A) 9.75 cm B) 9.8 cm
C) 10.60 cm **D) 10.4 cm (Correct)**

42. What is the length of arc of a sector whose radius is 3.6 cm and angle is 36 Degree?

- A) 2.10 cm **B) 2.26 cm (Correct)**
C) 22.6 cm D) 21.0 cm

43. What is the area of the circle, whose diameter is 50 cm?

- A) 1900 cm² B) 1950 cm²
C) 1962.5 cm² (Correct) D) 1960 cm²

44. What is the name of the region of a circle between any two point on the circumference?

- A) Arc (Incorrect) **B) Segment**
C) Sector D) Chord

45. What is the radius of the circle, whose circumference is 440 cm?

- A) 71.5 cm **B) 70 cm (Correct)**
C) 70.5 cm D) 72.2 cm

46. What is the area of a circular surface if the radius is 14 cm?

- A) **615.44 cm² (Correct)** B) 614.5 cm²
C) 612.25 cm² D) 612.44 cm²

47. What is the circumference of a circle whose diameter is 7 cm?

- A) **22 cm (Correct)** B) 44 cm
C) 25 cm D) 21 cm

48. What is the radius of a circle whose diameter is 44 cm?

- A) 44 cm **B) 22 cm (Correct)**
C) 23 cm D) 20 cm

49. What is the diameter of the circle, if the area of the circle is 78.5cm²?

- A) 5 cm **B) 10 cm (Correct)**
C) 15 cm D) 5.5 cm

50. What is the area of the circle if the radius is 10 cm?

- A) **314 cm² (Correct)** B) 31.4 cm²
C) 30.4 cm² D) 3.14 cm²

51. What is the radius of the semicircle, if the circumference of the semicircle is 28.26 cm?

- A) **5.49 cm (Correct)** B) 6.49 cm
C) 8.5 cm D) 8.75 cm

52. What is the diameter of the semicircle, if the circumference of the semicircle is 21.98 cm?

- A) **8.55 cm (Correct)** B) 8 cm
C) 7.55 cm D) 7 cm

53. What is the area of the semicircle, if the diameter is 14 cm?

- A) 70 cm² **B) 76.93 cm² (Correct)**
C) 75.06 cm² D) 86.93 cm²

54. What is the diameter of the circle, if the area of the circle is 706.5cm²?

- A) 29 cm B) 29.5 cm
C) 30 cm (Correct) D) 30.5 cm

55. What is the diameter of the circle, if the circumference is

- 31.4 cm?
A) 5 cm
C) 8 cm
- B) 10 cm (Correct)**
D) 8.5 cm
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56. Which machine converts mechanical energy into electrical energy?
A) Battery
C) Heater
- B) Generator**
D) Iron box (Incorrect)
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57. Which is the unit of current?
A) Ampere
C) Ohm
- B) Volt
D) Watt
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58. Which is the unit of resistance?
A) Ampere
C) **Ohm (Correct)**
- B) Volt
D) Watt
-
59. What is the flow of electrons in any conductor?
A) Voltage
- B) Current (Correct)**
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- C) Resistance
D) Power
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60. Which property of a substance is opposing the flow of electric current?
A) Current
C) **Resistance (Correct)**
- B) Voltage
D) EMF
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61. Which is very good conductor?
A) **Copper (Correct)**
- B) Cast iron
C) Wrought iron
D) Steel
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62. Which is mineral insulator
A) Glass
C) **Mica (Correct)**
- B) Quartz
D) Porcelain
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63. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?
A) 11 ohms
C) **17 ohms (Correct)**
- B) 7 ohm
D) 1/17 ohms
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