



Operations

Name _____

1. When 20 is subtracted from -4, the result is
 [1] 24 [2] 16 [3] -16 [4] -24

2. $(x + y) + z = x + (y + z)$ is an example of the _____ property of addition.
 [1] commutative [2] associative [3] distributive [4] identity

3. The value of -3^2 is
 [1] 9 [2] 3 [3] -9 [4] -3

4. Given: $a \$ b = |a - b|$ What is the value of $6 \$ 8$?
 [1] 14 [2] -2 [3] 2 [4] no answer

5. Linda paid \$38 for a jacket that was on sale for 25% of the original price.
 What was the original price of the jacket?
 [1] \$60 [2] \$72 [3] \$96 [4] \$152

6. The expression $\sqrt{27} + \sqrt{12}$ is equivalent to
 [1] $5\sqrt{3}$ [2] $13\sqrt{3}$ [3] $5\sqrt{6}$ [4] $\sqrt{39}$

7. In a hockey league, 87 players play on seven different teams. Each team has at least 12 players. What is the largest possible number of players on any one team?
 [1] 13 [2] 14 [3] 15 [4] 21

8. $\frac{14\sqrt{150}}{7\sqrt{2}}$ is equivalent to
 [1] $7\sqrt{3}$ [2] $10\sqrt{2}$ [3] $\sqrt{150}$ [4] $10\sqrt{3}$

9. The number 0.06022 expressed in scientific notation is
 [1] 6.022×10^{-2} [2] 0.6022×10^{-1} [3] 60.22×10^{-3} [4] 6022×10^{-5}

10. Solve for x : $\frac{5}{15} = \frac{x}{x+8}$
 [1] 3 [2] 4 [3] 5 [4] 7

| |
|-----------|
| 1. _____ |
| 2. _____ |
| 3. _____ |
| 4. _____ |
| 5. _____ |
| 6. _____ |
| 7. _____ |
| 8. _____ |
| 9. _____ |
| 10. _____ |

11. The resistance (R) of a copper wire, varies directly as its length (L). Write this relation as a formula using k as the constant of variation.

- [1] $L = kR$ [2] $R = kL$ [3] $R = \frac{k}{L}$ [4] $L = \frac{k}{R}$

11. _____

12. $(3x^3)^3$ is equivalent to

- [1] $27x^9$ [2] $27x^6$ [3] $9x^9$ [4] $9x^6$

12. _____

13. If $x = -3$ and $y = 7$, find the value of x^2y^3 .

- [1] -3087 [2] 343 [3] 3087 [4] -343

13. _____

14. Daniel's Print Shop purchased a new printer for \$35,000. Each year it depreciates (loses value) at a rate of 5%. What will its approximate value be at the end of the fourth year?

- [1] \$33,250.00 [2] \$30,008.13 [3] \$28,507.72 [4] \$27,082.33

14. _____

15. What is the quotient of 8.05×10^6 and 3.5×10^2 ?

- [1] 2.3×10^3 [2] 2.3×10^4 [3] 2.3×10^8 [4] 2.3×10^{12}

15. _____

16. The value of $(9 - 4)!$ is

- [1] 5 [2] 20 [3] 60 [4] 120

16. _____

17. Simplify: $|(8 - 4)| + |-3|$

- [1] 1 [2] 7 [3] 9 [4] 15

17. _____

18. The expression $2x^4 \cdot 3x^3$ is equivalent to

- [1] $6x^{12}$ [2] $6x^7$ [3] $5x^{12}$ [4] $5x^7$

18. _____

19. There are about 200 calories in 50 grams of Swiss cheese. Willie ate 70 grams of this cheese. About how many calories were in the cheese that he ate if the number of calories varies directly as the weight of the cheese.

- [1] 210 [2] 240 [3] 280 [4] 290

19. _____

20. $(\sqrt{7} - 3)^2$ is equivalent to

- [1] $-2 - 6\sqrt{7}$ [2] $7 - 6\sqrt{7}$ [3] $9 - 6\sqrt{7}$ [4] $16 - 6\sqrt{7}$

20. _____