

1-2 Practice***Order of Operations***

Evaluate each expression.

1. 11^2

2. 8^3

3. 5^4

4. $(15 - 5) \cdot 2$

5. $9 \cdot (3 + 4)$

6. $5 + 7 \cdot 4$

7. $4(3 + 5) - 5 \cdot 4$

8. $22 \div 11 \cdot 9 - 3^2$

9. $6^2 + 3 \cdot 7 - 9$

10. $3[10 - (27 \div 9)]$

11. $2[5^2 + (36 \div 6)]$

12. $162 \div [6(7 - 4)^2]$

13. $\frac{5^2 \cdot 4 - 5 \cdot 4^2}{5(4)}$

14. $\frac{(2 \cdot 5)^2 + 4}{3^2 - 5}$

15. $\frac{7 + 3^2}{4^2 \cdot 2}$

Evaluate each expression if $a = 12$, $b = 9$, and $c = 4$.

16. $a^2 + b - c^2$

17. $b^2 + 2a - c^2$

18. $2c(a + b)$

19. $4a + 2b - c^2$

20. $(a^2 \div 4b) + c$

21. $c^2 \cdot (2b - a)$

22. $\frac{bc^2 + a}{c}$

23. $\frac{2c^3 - ab}{4}$

24. $2(a - b)^2 - 5c$

25. $\frac{b^2 - 2c^2}{a + c - b}$

26. CAR RENTAL Ann Carlyle is planning a business trip for which she needs to rent a car. The car rental company charges \$36 per day plus \$0.50 per mile over 100 miles. Suppose Ms. Carlyle rents the car for 5 days and drives 180 miles.

- Write an expression for how much it will cost Ms. Carlyle to rent the car.
- Evaluate the expression to determine how much Ms. Carlyle must pay the car rental company.

27. GEOMETRY The length of a rectangle is $3n + 2$ and its width is $n - 1$. The perimeter of the rectangle is twice the sum of its length and its width.

- Write an expression that represents the perimeter of the rectangle.
- Find the perimeter of the rectangle when $n = 4$ inches.