

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. $\frac{bc^2 + a}{b}$

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.

a. Write an expression for how much it will cost Ms. Carlyle to rent the car.

b. 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.

a. Write an expression that represents the perimeter of the rectangle.

b. Find the perimeter of the rectangle when $n = 4$ inches.