

Name: _____

Order of Operations

- 1) Give three examples of grouping symbols.
- 2) Describe in order the steps you would take to evaluate the expression $12(x - 3)^2$ when $x = 5$.

Evaluate the expression.

3) $48 \div 6 + 2$

5) $15 - 3 \cdot 4$

7) $17 - (3^2 - 2)$

9) $47.7 - 12 \cdot 3$

11) $4[15 - (2 + 5)]$

13) $11 \cdot 7 - 9 \cdot 5$

15) $\frac{9.8 + 2.2}{7 - 5}$

17) $\frac{36 - 12}{2 + 6}$

4) $\frac{18 + 12}{7 - 2}$

6) $3 \cdot 8 + 5 \cdot 4$

8) $84 \div (18 - 16)$

10) $14 \div 7 + 36 \div 4$

12) $6 \cdot 5 - 2 \cdot 7$

14) $5.8(3) + 3(1.1)$

16) $7[2.5 + 3(12 - 7)]$

18) $5(21 - 3^2)$

Evaluate the expression when $x = 3$, $y = 4$, and $z = 5$.

19) $0.25(y + x)$

21) $7z - x^2$

23) $0.25y + x$

25) $x + \frac{24.4}{y}$

27) $y + (z - 1)^2$

20) $\frac{6.5y}{x - 1}$

22) $(x + y)^2 - 3.6$

24) $x + 2[z - (y - 1)]$

26) $4(z - x)$

Evaluate the expression when $x = 4$, and $y = 3$.

28) $7(x^2 - 5y)$

29) $\frac{6.5y + 2}{x + 1}$

30) $5x^2 + 2y$

31) $\frac{x^2 + 9}{y + 2}$

32) A boojum is a very slow-growing cactus. One fifty-year-old boojum is 1.5 meters tall and has been growing about 0.03 meter each year. Assume the growth pattern continues.



a. Write an expression for the height in meters of the boojum y years from now.

b. How tall will the boojum be in 50 years?

33) The table shows the numbers of sets of twins, triplets, quadruplets, and quintuplets registered at a twin convention.

Type	Sets
Twins	2697
Triplets	29
Quadruplets	2
Quintuplets	1

Write and evaluate an expression for the total number of people who registered at the convention.

34) Your school is setting up a row of 5 tables for a craft fair. Each table is 72 inches long. The space between each pair of neighboring tables must be 48 inches. Write and evaluate an expression to find the length of the space needed for the tables from the beginning of the first table to the end of the last table.

35) In basketball, players score points by making free throws worth 1 point each, field goals worth 2 points each, and field goals worth 3 points each. A player scores 4 free throws, 7 two-point field goals, and 2 three-point field goals. Write and evaluate an expression for the total number of points the player scores.

36) You buy 4 videotapes for \$14.99 each and 3 DVDs for \$19.99 each. Find the total cost of the movies.