Algebra I

Notes Section 1.2

Apply Order of Operations

Big Ideas

1. How to use the order of operations as a series of steps when evaluating expressions.

Vocabulary

Order of Operations

I. _____

II. _____

III. _____

IV. _____

EXAMPLE 1 Evaluate.

a) $2 \cdot 3^2 + 4$ _____

b) $15 + 6^2 - 4$ _____

c) $27 \div 3^2 \cdot 2 - 3$ _____

EXAMPLE 2 Evaluate.

a) $7(13-18)$ _____

b) $24 - (3^2 + 1)$ _____

c) $2[30 - (8 + 13)]$ _____

EXAMPLE 3 Evaluate the expression when x = 4.

$$\frac{9x}{3(x+2)}$$

_____

EXAMPLE 4 A group of 12 students volunteers to collect litter for one day. A sponsor provides 3 juice drinks and 2 sandwiches for each student and pays $30 for trash bags. The sponsor's cost ($) is given by the expression

$$12(3j + 2s) + 30$$

where j is the cost of a juice bodrink and s is the cost of a sandwich. A juice drink cost is $1.25. A sandwich costs $2.00. What is the sponsor's cost?