

1.1-1.4 Study Guide

Simplify using the order of operations:

Ex: $8 + 10 \div 5 - 3$

Ex: $5^2 - 8 \cdot 2$

Ex: $\frac{16 \cdot 3 - 4}{16 - 3 \cdot 4}$

Ex: $25 - (2 + 2) \cdot 3$

Write the power:

Ex: $6 \cdot 6 \cdot 6 \cdot 6 \cdot 6$

Ex: 4 squared

Evaluate the power:

Ex: 3^2

Ex: 1^4

Ex: 2^4

Evaluate the expression:

Ex: $7 \cdot (2a - 1)$ when $a = 3$

Ex: $4c^2 - 2c$ when $c = 5$

Ex: $40 - \frac{32}{x}$ when $x = 4$

Ex: $13 - 3x \div 5 + 9$ when $x = 5$

Translate the verbal phrase into an algebraic expression

Ex: The product of 11 and a number x

Ex: The quotient of a number b and 15

Ex: Twice the sum of a number and 2

Find the unit rate:

Ex: \$75 for 5 video games

Ex: 32 pencils in 8 boxes

Translate the verbal phrase into an equation or inequality

Ex: The difference of a number c and 17 is greater than 33

Ex: The sum of 14 and twice a number x is 21

Check whether the given number is a solution to the equation or inequality. Show your work.

Ex: $6x + 7 = 25$; $x = 3$

Ex: $\frac{m}{3} + 30 < 33$; $m = 9$

Ex: $6a + 9 \geq 21$; $a = 2$