Notes 2.5





Example: -7(3a + b) = (-7)3a + (– 7)b = -21a – 7b

**Vocabulary:**

**Terms:** the parts of an expression that are added together

**Coefficient:** The number part of a term with a variable part

**Like Terms:** terms that have identical variable parts with the variable parts raised to the same power (same exponent).

**Constant Term:** a term that has no variable part. Constant terms are also like terms since their variable has the power of 0 (exponent of 0).



Identify the terms of -3x + 8 + 4x – 1

Terms: -3x, 8, 4x, -1

Like Terms: -3x and 4x,

 8 and -1

Coefficients: -3, 4

Constants: 8, -1

Example: Simplify the expression 6(x – 2) – 4(3 – x)

6x + 6(-2) + (-4)3 + (-4)(-x)

6x + (-12) + (-12) + 4x

6x + 4x + (-12) + (-12)

10x + (-24)

10x – 24

Example: Your daily workout plan involves a total of 50 minutes of running and swimming. You burn 15 calories per minute when running and 9 calories per minute when swimming. Let r be your running time (in minutes). Find the number of calories you burn in your 50 minute workout if you run for 20 minutes.

Step 1: Verbal Model

Amount burned =

(Burning rate when running)(running time) + (burning rate when swimming)(swimming time)

C = 15r + 9(50 - r)

C = 15r + 450 – 9r

C = 15r – 9r + 450

C = 6r + 450 where r = 20 minutes

C = 6(20) + 450

C = 120 + 450

C = 570 calories