Algebra I
Notes Section 2.3
Solve Two-Step Equations

Big Ideas
1. How to solve two-step equations using subtraction, addition, division and multiplication.
2. How to use inverse properties and reciprocals to solve equations.

EXAMPLE 1   Solve the equation.

a) $5x + 9 = 24$

b) $4y - 4 = 16$

b) $x/2 + 5 = 11$

c) $-1 = z/3 - 7$

EXAMPLE 2   Solve.

a) $7x - 4x = 21$

b) $-16 = 5d - 9d$

EXAMPLE 3   Find the input of the function.

a)   The output of a function is **3** less than **5** times the input. Find the input when the output is **17**.

b)   The output of a function is **5** more than **-2** times the input. Find the input when the output is **11**.

EXAMPLE 4   A scuba diver descends into a deeper water, the pressure of the water on the diver's body steadily increases.

The pressure at the surface of the water is **2117** lb./ft². The pressure increases at a rate of **64** lb/ft² for each foot the diver descends. Find the depth at which a diver experiences a pressure of **8517** lb/ft².

Pressure at a Depth = **Pressure at Surface** + **Rate of Change** • **Diver's Depth**