Algebra I
Notes Section 2.8
Rewrite Equations and Formulas

Big Ideas
1. How to rewrite an equation so that y is a function of x.
2. How to rewrite an equation so that y is isolated on one side of the equation.
3. For all literal equations, how to solve for the given variable by using properties of equality and inverse operations.

EXAMPLE 1   Solve the literal equation.

a) $ax + b = c$ for x   Use the solution to solve $2x + 5 = 11$

b) $a - bx = c$ for x   Use the solution to solve $12 - 5x = -3$

c) $ax = bx + c$ for x   Use the solution $11x = 6x + 20$

EXAMPLE 2   Rewrite the equation so that y is a function of x.
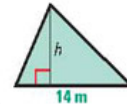
a) 3x + 2y = 8   b) 5x + 4y = 20   c) –2x + 3y = 6

EXAMPLE 3   The area A of a triangle is given by the formula
A=1/2bh where b is the base and h is the height.

a) Solve the formula for the height h.

b) Use the rewritten formula to find the height of the triangle shown, which has an area of 644m

14 m

EXAMPLE 4   You are visiting Toronto, Canada, over the weekend. A website gives the forecast shown. Find the low temperatures for Saturday and Sunday in F°. Use the formula C = 5/9(F–32) where C is the temperature in C° and F is the temperature in F°.

3 Day Forecast for Toronto

Friday	Saturday	Sunday
Sunny	Sunny	Partly Cloudy
High 21°C	High 22°C	High 16°C
Low 13°C	Low 14°C	Low 10°C