

MATH 1010 ~ Intermediate Algebra Chapter 2: Linear Equations and Inequalities

Section 2.1: [Linear Equations](#)

Objectives:

- * Check solutions of linear equations.
- * Solve linear equations in standard and nonstandard form.

$$3(x-2)-2x+1 = 4-(2x-5)$$

Some vocabulary:

Expression

Equation

Solution set

Conditional Equation

Identity

A linear equation is an equation in one variable which can be written as $ax+b=0$. (standard form)
a, b are real numbers and $a \neq 0$

① EXAMPLE:

Which of these are linear equations? Solve if possible. Check your answer.

a) $2x - 8 = 0$

b) $3x^3 - x = 5x + 7$

c) $3x + 2 + 2(x-6) = 5(x-2)$

d) $2x + 8 = 3x + 4 - x$

② EXAMPLE

Solve and check your solution

a) $-2(x+3) = 9 - 5x$

b) $\frac{3}{4}(6-x) = \frac{1}{3}(4x+5) + 2$

c) $0.2(8-x) = 0.3x + 4$