

# **MAT 142: College Mathematics**

## **Lecture Notes: Chapter 7 (Part 1)**

### **7.1: Linear Equations**

#### **A. Solving Linear Equations**

#### **B. Graphing Linear Equations**

Slope:

Intercepts:

Slope/Intercept Form:



## **B. Building a Model Using Two Points**

**Application:** According to the National Sleep Foundation, in 2004, Americans averaged 6.9 hours of sleep each weeknight. In 1900, they averaged about 8 hours and 30 minutes of sleep per weeknight. Model these data by a linear equation and use it to predict the year when Americans will not be sleeping at all on a weeknight.

## **C. Modeling Data Using a Line of Best Fit – page 313 in the book**