8.1 Linear Growth and Decay

Graphing Lines
  Looking at slope
  Looking at Intercepts
    Looking growth equations
      Decay equations

Slope - Intercept Form

$$y = mx + b$$

$$f(x) = mx + b$$

$$h = mt + b$$ h = hieght after tree
                  t = time
$$h = 300t + 60$$
$$= 300(5) + 60$$ b = initial hieght
$$1500 + 60$$
$$h = 1560ft$$

Slope = m

y - int = b

$$y = mx + b$$

$$y = 3x - 5$$
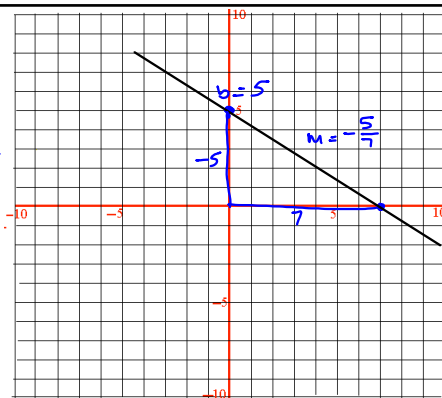 slope 3
  y - int -5
Vertical intercept

Growth - in a linear equation
  occurs when slope is positive

Decay - in a linear equation
  occurs when slope is negative

horizontal/vertical
are not growth or Decay

$$y = -\frac{5}{7}x + 5$$

b = 5

$$m = -\frac{5}{7}$$

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tape comes in rolls of 100ft.
If each ankle requires 20ft of
tape how much is left after 4 ankles
are taped

$$t = -20a + 100$$
$$t = -20(4) + 100$$
$$t = -80 + 100$$
$$t = 20$$