Algebra 1 ECA Remediation   Name _____

Quiz 38.3

1. A baseball is thrown into the air and its height (h), in feet, can be modeled by the equation $h = -16t^2 + 40t + 3$, where t represents time in seconds.

    How many seconds will it take for the baseball to hit the ground (h=0) after it is thrown into the air?

    a) 2.6 seconds
    b) 3 seconds
    c) 3.6 seconds
    d) 0 seconds

2. Suppose a model rocket is launched from a platform 3 ft above the ground and its height (h) in feet can be modeled by the equation $h = -16t^2 + vt + c$, where t is the time in seconds after the rocket is launched, v is the initial upward velocity, and c is the starting height.
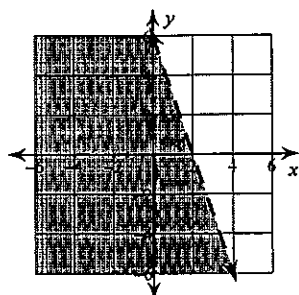
    Write an equation that can be used to find the height (h) of the rocket after t seconds if the initial upward velocity is 200 ft/sec.

    a) $h = -16t^2 + 200t - 3$
    b) $h = -16t^2 + 200t + 3$
    c) $h = -16t^2 - 3t + 200$
    d) $h = -16t^2 + 3t + 200$
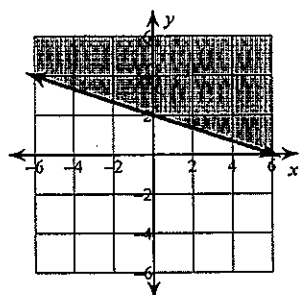
Sketch the graph of each linear inequality.
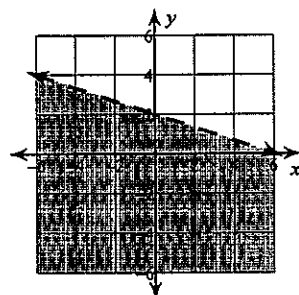
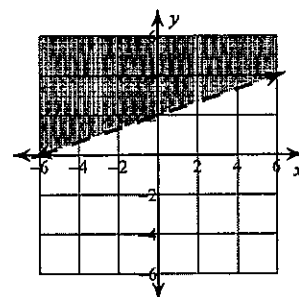3. $y \geq -\dfrac{1}{3}x + 2$

A)

B)

C)

D)

Divide.

4. $\left(2v^3 + 5v^2 + 27v\right) \div 9v$

A) $\dfrac{v}{3} + \dfrac{1}{3} + \dfrac{1}{3v}$

B) $4v^9 + 2v^8 + 2v^7$

C) $\dfrac{2v^2}{9} + \dfrac{4v}{9} + \dfrac{4}{9}$

D) $\dfrac{2v^2}{9} + \dfrac{5v}{9} + 3$