5.1 & 5.2 Worksheet

Name ANSWERS

Date _____ Period ____

Solve each equation by factoring.

1) $9x^2 = 24x - 12$

$x = \frac{2}{3}$ $x = 2$

2) $4 = -9x - 2x^2$

$x = -\frac{1}{2}$ $x = -4$

3) $0 = -7x - 4x^2 + 2$

$x = \frac{1}{4}$ $x = -2$

4) $6x^2 + 23x = -20$

$x = -\frac{5}{2}$ $x = -\frac{4}{3}$

5) $2x^2 - 20 = 3x$

$x = -\frac{5}{2}$ $x = 4$

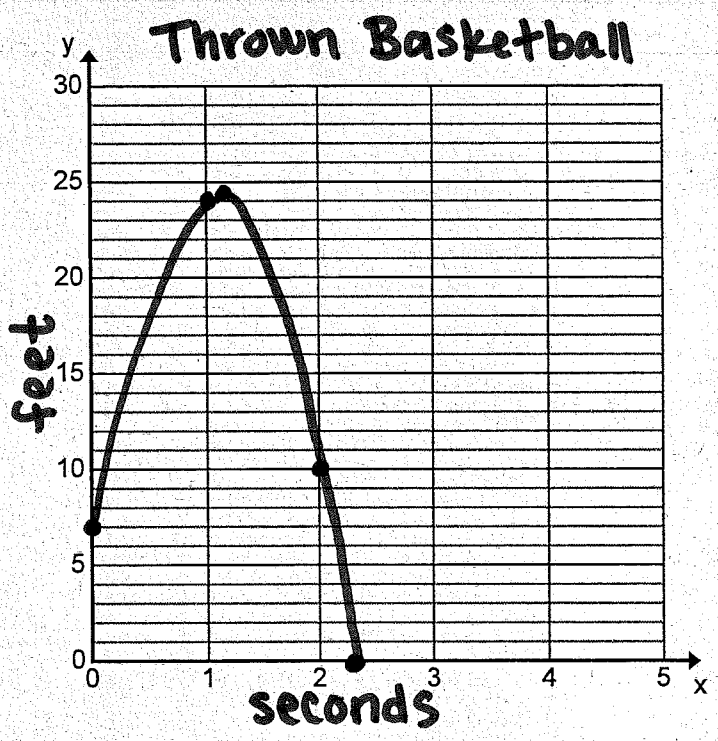
6) $3 + 7x = -2x^2$

$x = -\frac{1}{2}$ $x = -3$

The arc of a basketball which is thrown at the goal (but missed) is modeled by the equation $f(x)=-16x^2+34x+6$ where x is time in seconds.

Graph: (Accurately)

x	y
0	6
1	24
1.06	24.0625
2	10
2.29	0



Round to the nearest hundredth.

How high does the ball get? 24.0625 feet

How long does it take to get that high? 1.06 seconds

How long is the ball in the air? 2.29 seconds

What is the height of the ball after 1 second? 24 feet