

## Warm Up (p.521 #20)

20. **BASKETBALL** You throw a basketball whose path can be modeled by  $y = -16x^2 + 15x + 6$ , where  $x$  represents time (in seconds) and  $y$  represents height of the basketball (in feet).

a. What is the maximum height that the basketball reaches?

$$x = \frac{-b}{2a}$$

$$x = \frac{-15}{2(-16)}$$

$$x = \frac{15}{32}$$

$$y = -16\left(\frac{15}{32}\right)^2 + 15\left(\frac{15}{32}\right) + 6$$

$$y = 9.515625$$

$$y \approx \boxed{9.52 \text{ ft}}$$

## Homework Questions?

$$73. \frac{-3 \pm 2\sqrt{5}}{-1} \begin{cases} \frac{-3 + 2\sqrt{5}}{-1} \\ \frac{-3 - 2\sqrt{5}}{-1} \end{cases}$$

Ans / -1

$$79. \frac{1}{2}\sqrt{80}$$

$$\frac{1}{3} \frac{\sqrt{27}}{1} = \frac{\sqrt{27}}{3} = \frac{\sqrt{9\sqrt{3}}}{3}$$

~~$\frac{\sqrt{3}}{3}$~~  =  $\sqrt{3}$

$$82. \frac{2}{3}\sqrt{300}$$

$$\frac{2\sqrt{100}\sqrt{3}}{3} = \frac{2 \cdot 10\sqrt{3}}{3} = \frac{20\sqrt{3}}{3}$$

# 9.2 p.524 #17-25

G.Paper #23-25

$$x = \frac{-b}{2a}$$

y = plug in to original

## & Quiz Review wkst

