

# Algebra I

12-1

(Day 2)

## Quadratic Equations with Perfect Squares

Solve. Do part b) to the nearest tenth when necessary. (pg 563)

$$1) \sqrt{(y-6)^2} = \sqrt{18}$$
$$|y-6| = \sqrt{18}$$
$$y-6 = \pm 3\sqrt{2}$$
$$y-6+6 = 6 \pm 3\sqrt{2}$$

$$\{6 \pm 3\sqrt{2}\}$$
$$6) \{10.2, 1.8\}$$

$$2 \boxed{\text{v}} \times \boxed{3} \boxed{+} \boxed{-} \boxed{+} \boxed{6}$$

$$31) \left(\frac{1}{3}r^2 - 2 = \frac{5}{6}\right) 30$$
$$6r^2 - 60 = 25$$
$$6r^2 - 60 + 60 = 25 + 60$$
$$6r^2 = 85$$
$$\sqrt{r^2} = \sqrt{\frac{85}{6}}$$
$$\left\{ \begin{array}{l} r = \frac{\sqrt{85}\sqrt{6}}{\sqrt{6}\sqrt{6}} \\ r = \frac{\sqrt{510}}{6} \end{array} \right.$$

$$39) \sqrt{\left(z - \frac{3}{5}\right)^2} = \sqrt{\frac{7}{16}}$$
$$\left|z - \frac{3}{5}\right| = \frac{\sqrt{7}}{4}$$
$$z - \frac{3}{5} = \pm \frac{\sqrt{7}}{4}$$
$$z = \frac{3}{5} \pm \frac{\sqrt{7}}{4}$$
$$\left\{ \frac{3}{5} \pm \frac{\sqrt{7}}{4} \right\}$$

Pg 563  
2-24 even  
30-38 even  
do part b when necessary.