Precalculus
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## Practice Quiz

Date\_\_\_\_\_ Period\_\_\_\_

Solve each equation by factoring.

1) 
$$3n^2 - 14n + 16 = 0$$

$$2) 7p^2 + 50p - 48 = 0$$

3) 
$$35p^2 + 31p - 40 = 0$$

Solve each equation by taking square roots.

4) 
$$-4 - 2x^2 = -24$$

5) 
$$2m^2 - 7 = 7$$

6) 
$$81m^2 + 1 = 10$$

Solve each equation with the quadratic formula.

7) 
$$10n^2 - n + 1 = 0$$

8) 
$$2n^2 - n - 66 = 0$$

9) 
$$r^2 - 1 = 0$$

Solve each equation by completing the square.

10) 
$$x^2 - 4x + 1 = 0$$

11) 
$$x^2 + 6x - 47 = 0$$

12) 
$$5k^2 + 20k - 16 = 0$$

13) 
$$3x^2 - 12x - 96 = 0$$

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Period Date

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1) 
$$3n^2 - 14n + 16 = 0$$

$$\left\{\frac{8}{3},2\right\}$$

2) 
$$7p^2 + 50p - 48 = 0$$

$$\left|\frac{6}{7}, -8\right|$$

3) 
$$35p^2 + 31p - 40 = 0$$

$$\left\{\frac{5}{7}, -\frac{8}{5}\right\}$$

Solve each equation by taking square roots.

4) 
$$-4 - 2x^2 = -24$$

$$\{\sqrt{10}, -\sqrt{10}\}$$

5) 
$$2m^2 - 7 = 7$$

$$\{\sqrt{7}, -\sqrt{7}\}$$

6) 
$$81m^2 + 1 = 10$$

$$\left\{\frac{1}{3}, -\frac{1}{3}\right\}$$

Solve each equation with the quadratic formula.

7) 
$$10n^2 - n + 1 = 0$$

$$\left\{\frac{1+i\sqrt{39}}{20}, \frac{1-i\sqrt{39}}{20}\right\}$$

8) 
$$2n^2 - n - 66 = 0$$

$$\left.\left.\left.\left.\left.\left.\left.\left(6,-\frac{11}{2}\right)\right)\right.\right.\right|$$

9) 
$$r^2 - 1 = 0$$

$$\{1, -1\}$$

Solve each equation by completing the square.

10) 
$$x^2 - 4x + 1 = 0$$

$$\{2+\sqrt{3},2-\sqrt{3}\}$$

11) 
$$x^2 + 6x - 47 = 0$$

$$\left\{-3 + 2\sqrt{14}, -3 - 2\sqrt{14}\right\}$$

12) 
$$5k^2 + 20k - 16 = 0$$

$$\left\{\frac{-10+6\sqrt{5}}{5}, \frac{-10-6\sqrt{5}}{5}\right\}$$

13) 
$$3x^2 - 12x - 96 = 0$$

$$\{8, -4\}$$