

Assignment

Date _____ Period _____

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Solve each equation with the quadratic formula.

1) $3m^2 + 4m + 4 = 0$

2) $n^2 + n + 1 = 0$

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

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

5) $4p^2 + p + 5 = 0$

6) $4n^2 - n - 2 = -3$

$$7) x^2 + x + 5 = 3$$

$$8) x^2 - 3x + 9 = 5$$

$$9) 2m^2 - 5m + 9 = 5$$

$$10) 4r^2 + 3r + 8 = 5$$

$$11) 5x^2 + 2 = 2x$$

$$12) 3b^2 + 4 = -3b$$

$$13) 4x^2 + 2 = 4x$$

$$14) 5n^2 + 1 = 4n$$

$$15) 5v^2 = -v - 1$$

$$16) 4x^2 - 1 = -2x - 5$$

$$17) 3a^2 - 5a + 7 = 2a^2 - 3a + 4$$

$$18) 4k^2 + k + 6 = -3k + 4$$

$$19) 4p^2 + p + 3 = 2p$$

$$20) 2n^2 + 8 = 3 - n$$

$$21) -4x^2 + 7x - 4 = 3x$$

$$22) -2r^2 + 4 = -3r^2$$

$$23) -2b^2 + 5 + 3b = 3b - 5b^2$$

$$24) 0 = 3n^2 + 2$$

$$25) -5m^2 + m = 3 - m^2 + 3m$$

Answers to Assignment (ID: 1)

- 1) $\left\{ \frac{-2 + 2i\sqrt{2}}{3}, \frac{-2 - 2i\sqrt{2}}{3} \right\}$
- 2) $\left\{ \frac{-1 + i\sqrt{3}}{2}, \frac{-1 - i\sqrt{3}}{2} \right\}$
- 3) $\left\{ \frac{1 + i\sqrt{15}}{4}, \frac{1 - i\sqrt{15}}{4} \right\}$
- 4) $\left\{ \frac{3 + i\sqrt{39}}{8}, \frac{3 - i\sqrt{39}}{8} \right\}$
- 5) $\left\{ \frac{-1 + i\sqrt{79}}{8}, \frac{-1 - i\sqrt{79}}{8} \right\}$
- 6) $\left\{ \frac{1 + i\sqrt{15}}{8}, \frac{1 - i\sqrt{15}}{8} \right\}$
- 7) $\left\{ \frac{-1 + i\sqrt{7}}{2}, \frac{-1 - i\sqrt{7}}{2} \right\}$
- 8) $\left\{ \frac{3 + i\sqrt{7}}{2}, \frac{3 - i\sqrt{7}}{2} \right\}$
- 9) $\left\{ \frac{5 + i\sqrt{7}}{4}, \frac{5 - i\sqrt{7}}{4} \right\}$
- 10) $\left\{ \frac{-3 + i\sqrt{39}}{8}, \frac{-3 - i\sqrt{39}}{8} \right\}$
- 11) $\left\{ \frac{1 + 3i}{5}, \frac{1 - 3i}{5} \right\}$
- 12) $\left\{ \frac{-3 + i\sqrt{39}}{6}, \frac{-3 - i\sqrt{39}}{6} \right\}$
- 13) $\left\{ \frac{1 + i}{2}, \frac{1 - i}{2} \right\}$
- 14) $\left\{ \frac{2 + i}{5}, \frac{2 - i}{5} \right\}$
- 15) $\left\{ \frac{-1 + i\sqrt{19}}{10}, \frac{-1 - i\sqrt{19}}{10} \right\}$
- 16) $\left\{ \frac{-1 + i\sqrt{15}}{4}, \frac{-1 - i\sqrt{15}}{4} \right\}$
- 17) $\{1 + i\sqrt{2}, 1 - i\sqrt{2}\}$
- 18) $\left\{ \frac{-1 + i}{2}, \frac{-1 - i}{2} \right\}$
- 19) $\left\{ \frac{1 + i\sqrt{47}}{8}, \frac{1 - i\sqrt{47}}{8} \right\}$
- 20) $\left\{ \frac{-1 + i\sqrt{39}}{4}, \frac{-1 - i\sqrt{39}}{4} \right\}$
- 21) $\left\{ \frac{1 - i\sqrt{3}}{2}, \frac{1 + i\sqrt{3}}{2} \right\}$
- 22) $\{2i, -2i\}$
- 23) $\left\{ \frac{i\sqrt{15}}{3}, -\frac{i\sqrt{15}}{3} \right\}$
- 24) $\left\{ -\frac{i\sqrt{6}}{3}, \frac{i\sqrt{6}}{3} \right\}$
- 25) $\left\{ \frac{-1 - i\sqrt{11}}{4}, \frac{-1 + i\sqrt{11}}{4} \right\}$