 Name_____

Solving Quadratic Equations by Factoring

Date_____ Period____

Solve each equation by factoring.

1) $(k + 1)(k - 5) = 0$

2) $(a + 1)(a + 2) = 0$

3) $(4k + 5)(k + 1) = 0$

4) $(2m + 3)(4m + 3) = 0$

5) $x^2 - 11x + 19 = -5$

6) $n^2 + 7n + 15 = 5$

7) $n^2 - 10n + 22 = -2$

8) $n^2 + 3n - 12 = 6$

9) $6n^2 - 18n - 18 = 6$

10) $7r^2 - 14r = -7$

11) $n^2 + 8n = -15$

12) $5r^2 - 44r + 120 = -30 + 11r$

13) $-4k^2 - 8k - 3 = -3 - 5k^2$

14) $b^2 + 5b - 35 = 3b$

15) $3r^2 - 16r - 7 = 5$

16) $6b^2 - 13b + 3 = -3$

17) $7k^2 - 6k + 3 = 3$

18) $35k^2 - 22k + 7 = 4$

19) $7x^2 + 2x = 0$

20) $10b^2 = 27b - 18$

21) $8x^2 + 21 = -59x$

22) $15a^2 - 3a = 3 - 7a$

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1) $(k + 1)(k - 5) = 0$

{−1, 5}

2) $(a + 1)(a + 2) = 0$

{−1, −2}

3) $(4k + 5)(k + 1) = 0$

$\{-\frac{5}{4}, -1\}$

4) $(2m + 3)(4m + 3) = 0$

$\{-\frac{3}{2}, -\frac{3}{4}\}$

5) $x^2 - 11x + 19 = -5$

{3, 8}

6) $n^2 + 7n + 15 = 5$

{−5, −2}

7) $n^2 - 10n + 22 = -2$

{6, 4}

8) $n^2 + 3n - 12 = 6$

{3, −6}

9) $6n^2 - 18n - 18 = 6$

{4, −1}

10) $7r^2 - 14r = -7$

{1}

11) $n^2 + 8n = -15$

$\{-5, -3\}$

12) $5r^2 - 44r + 120 = -30 + 11r$

$\{6, 5\}$

13) $-4k^2 - 8k - 3 = -3 - 5k^2$

$\{8, 0\}$

14) $b^2 + 5b - 35 = 3b$

$\{-7, 5\}$

15) $3r^2 - 16r - 7 = 5$

$\{-\frac{2}{3}, 6\}$

16) $6b^2 - 13b + 3 = -3$

$\{\frac{2}{3}, \frac{3}{2}\}$

17) $7k^2 - 6k + 3 = 3$

$\{\frac{6}{7}, 0\}$

18) $35k^2 - 22k + 7 = 4$

$\{\frac{1}{5}, \frac{3}{7}\}$

19) $7x^2 + 2x = 0$

$\{-\frac{2}{7}, 0\}$

20) $10b^2 = 27b - 18$

$\{\frac{6}{5}, \frac{3}{2}\}$

21) $8x^2 + 21 = -59x$

$\{-\frac{3}{8}, -7\}$

22) $15a^2 - 3a = 3 - 7a$

$\{\frac{1}{3}, -\frac{3}{5}\}$