Algebra 1 Name_____ ID: 1

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Unit 3B Test Review

Date_____ Period____

Factor the common factor out of each expression.

1) $5r^4 - 50r^3 - 50r^2$

2) $-28b^6 - 20b^4 - 16b^3$

Solve each equation by factoring.

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

4) $n^2 + 4n = 0$

5) $x^2 + 4x - 26 = -5$

6) $r^2 - 3r = -2$

7) $7a^2 + 22a + 3 = 0$

8) $2x^2 - 5x - 3 = 0$

Solve each equation by taking square roots.

9) $9v^2 = 81$

10) $v^2 + 1 = 101$

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11) $8x^2 + 4 = 84$

12) $5n^2 + 1 = 96$

13) $81b^2 + 1 = 2$

14) $10b^2 - 4 = 476$

Solve each equation by completing the square.

15) $m^2 - 8m - 84 = 0$

16) $n^2 - 6n - 24 = 0$

17) $r^2 - 20r + 89 = -10$

18) $x^2 - 8x - 87 = -7$

19) $a^2 - 20a + 59 = 8$

20) $b^2 - 4b - 53 = -4$

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Answers to Unit 3B Test Review (ID: 1)

1) $5r^2(r^2 - 10r - 10)$

2) $-4b^3(7b^3 + 5b + 4)$

3) $\{1, -3\}$

4) $\{-4, 0\}$

5) $\{-7, 3\}$

6) $\{1, 2\}$

7) $\left\{-\frac{1}{7}, -3\right\}$

8) $\left\{-\frac{1}{2}, 3\right\}$

9) $\{3, -3\}$

10) $\{10, -10\}$

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

12) $\{\sqrt{19}, -\sqrt{19}\}$

13) $\{0.111, -0.111\}$

14) $\{6.928, -6.928\}$

15) $\{14, -6\}$

16) $\{3 + \sqrt{33}, 3 - \sqrt{33}\}$

17) $\{11, 9\}$

18) $\{4 + 4\sqrt{6}, 4 - 4\sqrt{6}\}$

19) $\{17, 3\}$

20) $\{2 + \sqrt{53}, 2 - \sqrt{53}\}$

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