Algebra 2 CW/HW   Name_____

Review of All Quadratics   Date_____

Solve each equation by factoring.

1) $n^2 - 2n - 24 = 0$ 2) $n^2 - 8n + 7 = 0$

3) $v^2 - 4 = 0$ 4) $x^2 + 5x + 4 = 0$

5) $m^2 + 4m - 28 = 4$ 6) $x^2 - 6x - 2 = -2$

Solve each equation by taking square roots.

7) $p^2 = 86$ 8) $r^2 = 41$

9) $r^2 = 34$ 10) $n^2 = 59$

11) $-v^2 = 14$

12) $p^2 - 10 = -11$

Solve each equation with the quadratic formula.

13) $8p^2 - p - 8 = 0$

14) $5n^2 + 10n - 19 = 0$

15) $2n^2 + n - 3 = 0$

16) $2n^2 - 8n + 12 = 0$

Find the discriminant of each quadratic equation then state the number and type of solutions.

17) $-2m^2 + 4m - 9 = -7$

18) $4v^2 + 8v - 8 = -3$

19) $n^2 + 6n + 13 = 4$

20) $7m^2 + 13 = 3$

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Answers to Review of All Quadratics

1) $\{6, -4\}$
2) $\{1, 7\}$
3) $\{-2, 2\}$
4) $\{-4, -1\}$

5) $\{4, -8\}$
6) $\{6, 0\}$
7) $\{\sqrt{86}, -\sqrt{86}\}$
8) $\{\sqrt{41}, -\sqrt{41}\}$

9) $\{\sqrt{34}, -\sqrt{34}\}$
10) $\{\sqrt{59}, -\sqrt{59}\}$
11) $\{i\sqrt{14}, -i\sqrt{14}\}$
12) $\{i, -i\}$

13) $\left\{\dfrac{1 + \sqrt{257}}{16}, \dfrac{1 - \sqrt{257}}{16}\right\}$
14) $\left\{\dfrac{-5 + 2\sqrt{30}}{5}, \dfrac{-5 - 2\sqrt{30}}{5}\right\}$
15) $\left\{1, -\dfrac{3}{2}\right\}$

16) $\{2 + i\sqrt{2}, 2 - i\sqrt{2}\}$
17) 0; one real solution
18) 144; two real solutions

19) 0; one real solution
20) −280; two imaginary solutions