Math 2 Name_____

Quadratic Review

Solve each equation by completing the square.

1) $x^2 - 8x + 6 = -9$

2) $x^2 - 16x - 73 = 7$

3) $x^2 - 20x + 70 = -3$

4) $9k^2 - 18k - 13 = -7$

5) $n^2 - 18n + 86 = -2$

Solve each equation with the quadratic formula.

6) $6b^2 + 7b - 20 = 0$

7) $3v^2 + 3v + 12 = 0$

8) $n^2 = 17 + 2n$

9) $3m^2 - 24 = -m$

Solve each equation by taking square roots.

10) $n^2 - 5 = 59$

11) $-7n^2 = -161$

12) $6 - 4b^2 = -10$

13) $3n^2 + 5 = -106$

Simplify.

14) $(-8 - 4i)^2$

15) $(-1 + i)(6 - 4i)$

16) $-3i \cdot 3i(-5 - 3i)$

17) $(4 + 3i)^2$

18) $(2 + 3i)^2$

19) $(-2 + 6i)(5 + 3i)$

Find the value of the discriminant of each quadratic equation.

20) $6p^2 - 2p + 2 = 0$

21) $-3n^2 - 2n - 5 = 0$

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

22) $-8n^2 + 8n - 5 = 0$

23) $-9r^2 - 16 = -9$

Factor out the gcf.

24) $5b^3 - 4b^2 + 4b$

25) $15a^2b^2c + 30a^2b + 10ab$