Name: _____

Solve each equation using the square root property. Simplify radicals with imaginary numbers.

1) $n^2 = -52$

2) $k^2 = -1$

3) $v^2 = -14$

4) $n^2 - 3 = -9$

5) $a^2 - 5 = -8$

6) $v^2 - 4 = -14$

Simplify. Give solutions in standard, a + bi, form.

7) $(-8i) + (-2 - 5i)$

8) $(-i) - (4i)$

9) $(7 - 7i) - (6i)$

10) $(5 + 6i) + (4i)$

11) $(-8 - 7i) + (1 + 6i)$

12) $(3 - 8i) + (-5 - 5i)$

13) $(4 + 7i) + (4i) - (6i)$

14) $(-3 - 8i) + (6 + 5i)$

15) $(8 - 8i)(-1 - 4i)$

16) $(-4 + 7i)^2$

17) $(8 + 7i)^2$

18) $(5 - 4i)(6 - 3i)$

19) $-7(-8i)(6 + i)$

20) $(-7 + 3i)(8 + 6i)$

Solve each equation with the quadratic formula. Simplify all radicals as needed and give solutions as reduced fractions when applicable. Then indicate the number of x-intercepts that will be found on the graph of the quadratic.

21) $6x^2 - 10x = -9$

22) $9a^2 + 4 = -4a$

23) $2n^2 = -9$

24) $3p^2 - 2p = -7$

25) $-5p^2 = 3$

26) $9x^2 + 10 = x$