

## Complex WS

**Simplify.**

1)  $(1 - 3i)(6 + 4i)$

2)  $3 - (2i) + (-8 - 4i)$

3)  $(5 - 7i) - (-1 + i)$

4)  $7(-8 + 2i) - (6i)(-3i)$

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

6)  $(-4i)(i)(1 + 5i)$

7)  $-3(-i) + 5(-4 + 5i)$

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

9)  $-3(-8 + 8i) + 7(-i)$

10)  $(-1 - 5i)(6 - 4i)$

**Solve each equation by taking square roots.**

$$11) \ 5n^2 - 4 = -28$$

$$12) \ 2m^2 + 6 = -5$$

$$13) \ 10a^2 + 7 = -142$$

$$14) \ 3x^2 - 10 = -52$$

$$15) \ 3p^2 - 3 = -9$$

$$16) \ 2k^2 - 3 = -11$$

**Solve each equation with the quadratic formula.**

$$17) \ 4b^2 - 5b = -10$$

$$18) \ 5n^2 + 9 = 4n$$

$$19) \ 8b^2 - 4b = -3$$

$$20) \ 11r^2 + 9r = -3$$