

Name _____
Mr. Schlansky

Date _____
Algebra II

Operations with Complex Numbers

Multiply the following pairs of complex numbers and express in a + bi form

1. $(-2 + 9i) + (6 + 8i)$

2. $(-10 + 2i) + (7 + 6i)$

3. $(5 - 2i) - (2 - 3i)$

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

5. $(7 - 2i) \cdot (8 + 3i)$

6. $(6 - i) \cdot (8 - 5i)$

7. $(5 - 2i) \cdot (2 - 3i)$

8. $(-2 + 2i) \cdot (8 - i)$

9. $(-2 + 9i) \cdot (6 + 8i)$

10. $(-7 + 2i) \cdot (7 + 6i)$

$$11. (2 - yi)^2$$

$$12. (3 - 7i)^2$$

$$13. (3k - 2i)^2$$

$$14. (4x - 3yi)^2$$

$$15. 3xi(3 - 2i)$$

$$16. 5i + 4i(2 + 3i)$$

$$17. 2xi(i - 4i^2)$$

$$18. 6xi^3(-4xi + 5)$$

$$19. 2i(\sqrt{-4} - 4)$$

$$20. -\frac{1}{2}i^3(\sqrt{-9} - 4) - 3i^2$$