

# Secondary Math 2

## Unit 1 - Polynomials and Complex Numbers

### PRACTICE TEST

Name

(LESSON)

1. Simplify:  $(3x^2 - 4x + 6) + (5x^2 - 2x - 7)$

(1-1)

2. Find the product:  $-3x(2x^4 + 5x^2 - 6)$

(1-1)

3. Find the product:  $(5x - 3)(5x + 3)$

(1-1)

4. Simplify:  $(-3t^3r^7)^3$

(1-2)

5. Simplify:  $\left(\frac{a^5}{3b^5c^{-3}}\right)^4$

(1-2)

6. Simplify:  $\sqrt{54a^5b^2c^6}$

(1-3)

7. Simplify:  $(81x^8y^{12}z)^{\frac{3}{4}}$  (1-3)
8. Evaluate:  $125^{\frac{2}{3}}$  (1-3)
9. Simplify:  $8\sqrt{5} + 6\sqrt{5}$  (1-4)
10. Calculate and simplify:  $3\sqrt{80} - 5\sqrt{45}$  (1-4)
11. Find the product:  $(2 + 3i)(4 - 5i)$  (1-5)
12. Find the product:  $(-3i)(-10i)$  (1-5)
13. In standard  $a + bi$  form, identify the value of  $b$  in the following expression:  $2 + \sqrt{-40}$  (1-5)