

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

**Expand completely.**

$$1) (2y + 4x)^4$$

$$16y^4 + 128y^3x + 384y^2x^2 + 512yx^3 + 256x^4$$

$$2) (3x + 1)^4$$

$$81x^4 + 108x^3 + 54x^2 + 12x + 1$$

$$3) (3a + 1)^3$$

$$27a^3 + 27a^2 + 9a + 1$$

$$4) (m + 3)^3$$

$$m^3 + 9m^2 + 27m + 27$$

**Find each product.**

$$5) (-5v - 7)(7v + 4)$$

$$-35v^2 - 69v - 28$$

$$6) (-n + 8)(-5n - 5)$$

$$5n^2 - 35n - 40$$

$$7) (-7a - 1)(a - 5)$$

$$-7a^2 + 34a + 5$$

$$8) (-4r + 8)(-7r + 8)$$

$$28r^2 - 88r + 64$$

$$9) (-4a^2 + 2a + 7)(-a^2 - 6a + 5)$$

$$4a^4 + 22a^3 - 39a^2 - 32a + 35$$

$$10) (-7x^2 - 2x + 8)(2x^2 + x + 8)$$

$$-14x^4 - 11x^3 - 42x^2 - 8x + 64$$

$$11) (8v^2 + 5v + 8)(7v^2 + 6v + 5)$$

$$56v^4 + 83v^3 + 126v^2 + 73v + 40$$

$$12) (-2x^2 + 3x + 4)(-4x^2 + x - 4)$$

$$8x^4 - 14x^3 - 5x^2 - 8x - 16$$

**Simplify.**

$$13) (7i)(6i)(-2 + 4i)$$

$$84 - 168i$$

$$14) (4 + i)(-6 - 5i)$$

$$-19 - 26i$$

$$15) (-7i)(-6i) + (i)(3 + 8i)$$

$$-50 + 3i$$

$$16) (-5 - 3i)^2$$

$$16 + 30i$$

$$17) (-i)(-5 + 6i)(-4 + i)$$

$$-29 - 14i$$

$$18) (3 + 5i)(3 - 2i)(-2 + i)$$

$$-47 + i$$