

Name: \_\_\_\_\_

### **Math 9: Exponent Rules Quiz**

**Answer the following questions to the best of your ability!**

**1) Write as a power:**

**a)**  $6^3 \times 6^7 =$  \_\_\_\_\_

**b)**  $(-4)^2 \times (-4)^5 =$  \_\_\_\_\_

**c)**  $25^3 \times 25^7 =$  \_\_\_\_\_

**d)**  $3^0 \times 3^4 =$  \_\_\_\_\_

**e)**  $(-5) \times (-5) =$  \_\_\_\_\_

**f)**  $(-10)^2 \times (-10)^3 =$  \_\_\_\_\_

**2) Write as a power:**

**a)**  $7^{10} \div 7^5 =$  \_\_\_\_\_

**b)**  $(-3)^{10} \div (-3)^2 =$  \_\_\_\_\_

**c)**  $9^6 \div 9 =$  \_\_\_\_\_

**d)**  $\frac{8^{12}}{8^6} =$  \_\_\_\_\_

**e)**  $\frac{(-2)^4}{(-2)} =$  \_\_\_\_\_

**f)**  $\frac{(-5)^7}{(-5)^4} =$  \_\_\_\_\_

**3) Evaluate. Write your answer in standard form.**

**a)**  $3^5 \times 3^0 =$  \_\_\_\_\_

**b)**  $(-4)^4 \div (-4)^3 =$  \_\_\_\_\_

**4) Write as a power.**

**a)**  $5^6 \times 5^6 \div 5^4 =$  \_\_\_\_\_

**b)**  $(-6)^9 \div (-6)^4 \times (-6)^3 =$  \_\_\_\_\_

**c)**  $(-3) \times (-3)^4 \times (-3)^8 =$  \_\_\_\_\_

**d)**  $6^{12} \div 6^5 \div 6^2 =$  \_\_\_\_\_

**e)**  $\frac{8^5 \times 8^2}{8^3 \times 8^1} =$  \_\_\_\_\_

**f)**  $\frac{(-2)^3 \times (-2)^2}{(-2)^3 \times (-2)} =$  \_\_\_\_\_

**5) Write as a power and then evaluate in standard form.**

**a)**  $5^4 \times 5^7 \div 5^8 =$  \_\_\_\_\_ = \_\_\_\_\_

**b)**  $(-8)^5 \div (-8)^4 \times (-8)^2 =$  \_\_\_\_\_ = \_\_\_\_\_

