Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_

**10.3B Quotient of Powers Property\_Classwork**

*Objective: divide powers with the same base; simiplify expressions involving the quotient of powers. CC.SS.EE.1*

*HW: (10.3B) p. 426 #16 – 20, 23 – 26. Check your odd answers on p. A39 and even answers below*

*\*\* EVEN SOLUTIONS: 16) 76 18) (-8.3)2 20) c5 24) 64x 26) 125cd2*

EXAMPLE 2 (P. 424) AND ONE ADDITIONAL EXAMPLE.

SIMPLIFY THE EXPRESSION. WRITE YOUR ANSWER AS A POWER

|  |
| --- |
| 1) $ \frac{3^{4}∙ 3^{2}}{3^{3}}$ |
| 2) $ \frac{7x^{5}}{x^{3}}$ |

SIMPLIFY THE EXPRESSION. WRITE YOUR ANSWER AS A POWER

|  |  |
| --- | --- |
| 5a. $\frac{2^{15}}{2^{3} ∙ 2^{5}}$  | 5b. $\frac{π^{10}}{π^{5} ∙ π^{4}}$ |
| 5c. $\frac{k ∙ 3^{9}}{3^{5}}$ | 5d. $\frac{x^{4} ∙ y^{10} ∙ 2^{11}}{y^{8} ∙2^{7}}$ |

**Warm Up.** SIMPLIFY EACH EXPRESSION. WRITE YOUR ANSWER AS A POWER.

|  |  |  |
| --- | --- | --- |
| $$1. \frac{4^{5}}{4^{2}}$$ | 2. $\frac{\left(-2\right)^{10}}{\left(-2\right)^{3}}$  | 3. $\frac{P^{7}}{P^{6}}$ |