

NAME: _____

P.I. A.A.12: Divide monomial expressions with a common base, using the properties of exponents Note: Use integral exponents only

1. Explain why the expression $\frac{w^4}{w}$ is *not* in simplest form.

2. Explain how to use repeated multiplication to show that $\frac{4^5}{4^2} = 4^3$.

[1] The bases in the expression are the same, so $\frac{w^4}{w} = w^3$

[2] Write 4^5 as $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$ and 4^2 as $4 \cdot 4$. Cancel two fours in each product to get 4^3 .