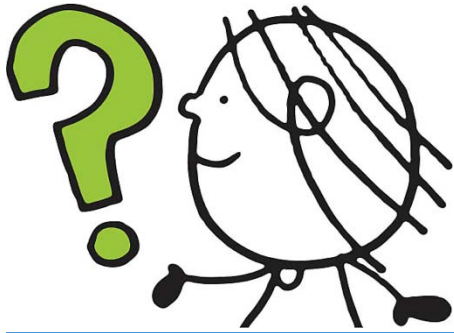


Name _____



Rule Reasons

Directions: Simplify each expression. Then write one or two sentences explaining why the exponent rule works. You may use repeated multiplication in your explanation.

1. $x^3 \cdot x^4$

Simplified:

Explain:

2. $\frac{m^8}{m^3}$

Simplified:

Explain:

3. $(a^2)^5$

Simplified:

Explain:

4. $(3b)^2$

Simplified:

Explain:

5. $\left(\frac{y}{z}\right)^3$

Simplified:

Explain:

6. $c^5 \cdot c^2$

Simplified:

Explain: