

Name: PikeDate: 9/28/26 Score: _____**Exponents - Product & Quotient Rule**

Simplify using the product rule

1 $(-6)^5 \cdot (-6)^{12}$

$(-6)^{17}$

2 $6^2 \cdot 6^{2+x}$

$6^4 \cdot 2x$

3 $2x^3 \cdot 2x^2$

$4x^5$

4 $(x^2y)^4$

x^8y^4

5 $3^4 \cdot 3^{-2}$

6^2

6 $2^3 \cdot 2^9 \cdot 2^7$

2^{19}

Simplify using the quotient rule

7 $\frac{52x^6}{13x^{-7}}$

$\frac{4}{x}$

8 $\left(\frac{4a^5b}{16ab^4}\right)^3$

$\frac{1a^{12}}{64b^9}$

9 $\frac{5p^8}{20p^8}$

$\frac{1}{4}$

10 $\frac{18a^8b^8}{10a^3}$

$\frac{9a^5b^8}{5}$