

NAME: _____

DO NOW

Expand and Simplify each of the following exponents:

1. $3^3 \cdot 3^2$

2. $\frac{5^7}{5^3}$

3. $(4^2)^2$

CHECK POINT #1

Exponents or Powers are? _____

Product of Powers Property

Quotient of Power Property

Power of a Power Property

Negative Exponents

CHECK POINT #2

a. $5^3 \cdot 5^5$

b. $x^2 \cdot x^5 \cdot x^3$

c. $3 \cdot 3^4 \cdot 3^{-2}$

d. $x \cdot x^{-2} \cdot x^4$

e. $\frac{x^8}{x^2}$

f. $\frac{x^5 x^8}{x^4}$

CHECK POINT #3

a. $(3^3)^5$

b. $(y^2)^4$

c. $(4yz)^2$

c. $(x^5z^2)^3$

d. $\left(\frac{r}{s}\right)^5$

e. $\left(\frac{x}{z^3}\right)^4$

CHECK POINT #4

a. $(6 \cdot 5)^3$

b. $(-2w)^2$

c. $-(3x^2y)^3$

d. $\left(\frac{x^4y^3}{y^2}\right)^2$

e. $\left(\frac{5x^2}{y^4}\right)^3$

f. $\left(\frac{x}{y^2}\right)^4 \cdot \left(\frac{y}{x}\right)^3$

EXIT TICKET

SELF ASSESS: _____

Simplify

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

2. $y^5 \cdot y \cdot y^{-2}$

3. $(2z^4)^4$

4. $\left(\frac{x^3}{y^3}\right)^2$

5. $\frac{t^3}{t^6}$

6. $\left(\frac{3a^4}{5b^2}\right)^3$