

## Week 20 Practice: Properties of Exponents

Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify. Your answer should contain only positive exponents.**

1) 
$$\frac{(x^0 y^2)^2}{2xy \cdot 2xy^2}$$

2) 
$$\left(\frac{(x^2)^2}{y^2 \cdot yx^2}\right)^2$$

3) 
$$\frac{(xy^2 \cdot (2yx^2)^2)^2}{x^2}$$

4) 
$$\left(\frac{x^0 \cdot 2x^2 y^2}{xy}\right)^0$$

5) 
$$\frac{(2x \cdot 2y^2)^2}{xy^2}$$

6) 
$$\frac{(2yx^{-1})^2}{2y^{-1} \cdot 2x}$$

7) 
$$\left(\frac{(2x^2 y^0)^{-1} \cdot (x^2 y^0)^0}{2x^2 y^{-1}}\right)^{-1}$$

8) 
$$\frac{2a^2 b^{-1}}{(ab)^2 \cdot (2b^2)^2}$$

9) 
$$\left(\frac{2vu^{-1} \cdot v^2}{2u^2 v^{-2}}\right)^2$$

10) 
$$\frac{2nm^0 \cdot m^{-1} n^{-2}}{(m^2 n^{-1})^{-2}}$$

11) 
$$\frac{u^{-3} v^4 \cdot 2uv^3}{(u^0 v^3)^3}$$

12) 
$$\frac{(2m^{-3})^{-4}}{2m^4 n^{-4} \cdot n^0}$$

13) 
$$\left(\frac{xy^{-1}}{x \cdot 2x^2 y^{-1}}\right)^0$$

14) 
$$\left(\frac{2x^2 y^2}{2x^4 y^0 \cdot yx^{-2}}\right)^3$$

15) 
$$\frac{ba^0 \cdot 2ab}{(a^0 b^2)^2}$$

16) 
$$\frac{(2x^{-3} y^0)^0 \cdot (yx^3)^3}{x^4 y^0}$$

## Answers to Week 20 Practice: Properties of Exponents (ID: 1)

1)  $\frac{y}{4x^2}$

5)  $16xy^2$

9)  $\frac{v^{10}}{u^6}$

13) 1

2)  $\frac{x^4}{y^6}$

6)  $\frac{y^3}{x^3}$

10)  $\frac{2m^3}{n^3}$

14)  $y^3$

3)  $16x^8y^8$

7)  $\frac{4x^4}{y}$

11)  $\frac{2}{u^2v^2}$

15)  $\frac{2a}{b^2}$

4) 1

8)  $\frac{1}{2b^7}$

12)  $\frac{m^8n^4}{32}$

16)  $y^3x^5$