Name: _____ Period: _____ Date: _____

Zero and Negative Exponents Bell Work

Simplify the following expression

1. $x - y^0$

2. $-(-2x)^0$

3. $-1^{-1} - 2^{-1}$

4. $-2^{-1} - 2x^0$

Evaluate the following using properties of power.

5. $\left(\frac{2x}{3y}\right)^{-1}$

6. $\left(\frac{x^2}{y^3}\right)^{-1}$

7. $\left(\frac{x^5}{x^9}\right)^{-3}$

8. $-5^2 x^{-3}$

Simplify the following without negative exponent.

9. $(x^{-1} - y^{-1})^0$

10. $\frac{-2^{-2} - 5x^0}{-2 - 2^{-1}}$

Zero and Negative Exponents Bell Work

Answer:

Simplify the following expression

1. $x - y^0 = $ $x - 1$

2. $-(-2x)^0 = $ -1

3. $-1^{-1} - 2^{-1} = -1 - \frac{1}{2} = -\frac{3}{2}$

4. $-2^{-1} - 2x^0 = -\frac{1}{2} - 2 = -\frac{5}{2}$

Evaluate the following using properties of power.

5. $\left(\frac{2x}{3y}\right)^{-1} = \left(\frac{3y}{2x}\right)^{1} = \frac{3y}{2x}$

6. $\left(\frac{x^2}{y^3}\right)^{-1} = \left(\frac{y^3}{x^2}\right)^{1} = \frac{y^3}{x^2}$

7. $\left(\frac{x^5}{x^9}\right)^{-3} = \left(\frac{1}{x^4}\right)^{-3} = x^{12}$

8. $-5^2 x^{-3} = -\frac{25}{x^3}$

Simplify the following without negative exponent.

9. $(x^{-1} - y^{-1})^0 = $ 1

10. $\frac{-2^{-2} - 5x^0}{-2 - 2^{-1}} = \frac{-\frac{1}{4} - 5}{-2 - \frac{1}{2}} = \frac{\frac{-1-20}{4}}{\frac{-4-1}{2}} = \left(-\frac{21}{4}\right)\left(-\frac{2}{5}\right) = \frac{42}{20} \, or \, \frac{21}{10}$