



Topic/Objective: AGS 2 Module 3.2

Name:

Negative Exponents

Period:

Date:

Essential Question: How do we change a negative exponent to a positive exponent?

Questions:

Exploring Exponents:

$$5^3 =$$

$$5^2 =$$

$$5^1 =$$

$$5^0 =$$

$$5^{-1} =$$

$$5^{-2} =$$

Rule: $x^{-a} = \frac{1}{x^a}$ Do **not** leave negative exponents in your solutions! ☺

Negative exponents create _____.

Simplify. Leave answers in exponential form with only positive exponents.

1. $2^{-5} =$

2. $m^{-5} =$

3. $2^{-5} \cdot 2^8 =$

4. $2^{-5} \cdot 2^4 =$

5. $x^{-b} =$

6. $m^4 \cdot 2m^{-3} =$

7. $4a^3b^2 \cdot 3a^{-4}b^{-3} =$

8. $(2x^0y^2)^{-3} =$

9. $2(x^2)^{-4} =$

10. $(x^2y^{-1})^3 =$

11. $(n^3)^3 \cdot 2n^{-1} =$

12. $x^4y^{-3}(2y^2)^0 =$

13. $\frac{n^3}{n^8} =$

14. $\frac{n^{-3}}{n^8} =$

15. $\frac{2h^3j^{-3}k^4}{3jk} =$

16. $\frac{(2m^2)^{-1}}{m^2} =$

17. $\frac{3^{-2} \cdot 3^5}{3^7} =$

18. $(3x^2y)^{-1} =$

19. $2k^4 \cdot 6k^{-5} =$

19. $(2k)^4 \cdot (6k)^{-5} =$

Summary: Explain how to change a negative exponent to a positive exponent.