

Rewriting Expressions with Negative Exponents

A negative exponent means the number with the exponent moves to the other side of the fraction.

Example A (Rewrite): $2^{-3} = \frac{1}{2^3}$ Example B (Rewrite): $\frac{1}{7^{-2}} = 7^2$

A. Rewrite using positive exponents.

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

3. $3^{-2} =$ _____

2. $5^{-1} =$ _____

4. $4^{-2} =$ _____

B. Rewrite using positive exponents.

(Move the number with the negative exponent to the other side of the fraction.)

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

7. $\frac{1}{6^{-2}} =$ _____

6. $\frac{1}{10^{-1}} =$ _____

8. $\frac{1}{5^{-1}} =$ _____

C. Rewrite using positive exponents (mixed practice).

9. $8^{-1} =$ _____

13. $\frac{1}{8^{-1}} =$ _____

10. $\frac{1}{10^{-2}} =$ _____

14. $6^{-2} =$ _____

11. $\frac{1}{9^{-1}} =$ _____

15. $3^{-3} =$ _____

12. $7^{-1} =$ _____

16. $\frac{1}{5^{-2}} =$ _____

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A negative exponent means the number with the exponent moves to the other side of the fraction.

Example A (Rewrite): $2^{-3} = \frac{1}{2^3}$ Example B (Rewrite): $\frac{1}{7^{-2}} = 7^2$

A. Rewrite using positive exponents.

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

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

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

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

B. Rewrite using positive exponents.

(Move the number with the negative exponent to the other side of the fraction.)

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

7. $\frac{1}{6^{-2}} = 6^2$

6. $\frac{1}{10^{-1}} = 10$

8. $\frac{1}{5^{-1}} = 5$

C. Rewrite using positive exponents (mixed practice).

9. $8^{-1} = \frac{1}{8}$

13. $\frac{1}{8^{-1}} = 8$

10. $\frac{1}{10^{-2}} = 10^2$

14. $6^{-2} = \frac{1}{6^2}$

11. $\frac{1}{9^{-1}} = 9$

15. $3^{-3} = \frac{1}{3^3}$

12. $7^{-1} = \frac{1}{7}$

16. $\frac{1}{5^{-2}} = 5^2$