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8.EE.A.1 Division of Integer Exponents

8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions.

Simplify:

1. $\dfrac{12x^7y^4}{-6x^2y^5}$

2. $\dfrac{-6x^6y^6}{-2x^4y^7}$

3. $\dfrac{-27x^7y^2}{-9x^6y^5}$

4. $\dfrac{-32x^6y^5}{-8x^5y^7}$

5. $\dfrac{42x^4y}{-7xy^5}$

6. $\dfrac{-25x^4y^3}{-5x^3y^5}$

7. Show two ways to use a calculator to find the value of $\dfrac{3^6}{3^2}$.

8. Write b^{12} as a quotient form $\dfrac{b^m}{b^n}$ in four different ways. Use only positive exponents.

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8.EE.A.1 Division of Integer Exponents

Answer Key

8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions.

[1] $-\frac{2x^5}{y}$

[2] $\frac{3x^2}{y}$

[3] $\frac{3x}{y^3}$

[4] $\frac{4x}{y^2}$

[5] $-\frac{6x^3}{y^4}$

[6] $\frac{5x}{y^2}$

[7] 3 [^] 6 [÷] 3 [^] 2 and 3 [^] [(] 6 [–] 2 [)]

[8] Answers may vary. Sample: $\frac{b^{24}}{b^{12}}$, $\frac{b^{14}}{b^2}$, $\frac{b^{13}}{b}$, $\frac{b^{20}}{b^8}$