Negative Exponents

Do questions in # ORDER 1-10

REMEMBER

To change a negative exponent to a positive exponent, take the reciprocal of the expression and use the positive exponent.

Examples: $2^{-5} = \frac{1}{2^5}$ $\quad \frac{1}{x^{-3}} = x^3$ $\quad \frac{a^{-4}}{b^{-2}} = \frac{b^2}{a^4}$ $\quad a^2b^{-5} = \frac{a^2}{b^5}$

6. The value of 3^{-3} is

(1) 27 (3) $\frac{1}{27}$

(2) $\frac{1}{9}$ (4) 9

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1. Find the equivalent of $\frac{5^{-2}}{3^{-2}}$

(1) $\frac{3^{-2}}{5^{-2}}$ (3) $(5^2)(3^2)$

(2) 15^2 (4) $\frac{3^2}{5^2}$

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2. Write as an expression with positive exponents:

$5a^{-3}b^{-2}c$

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7. Find the value of: $2\left(\frac{1}{4}\right)^{-2}$

(1) 32 (3) $\frac{1}{8}$

(2) 16 (4) 4

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10. Write the fraction $\frac{1}{8}$ as a whole number with a negative exponent.

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3. Write with only positive exponents:

$3a^{-2}b^{-3}$

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4. Write with positive exponents only :

$a^{-5}b^4$

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8. Evaluate: $8^2 \div \frac{1}{2^{-4}}$

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9. Find the value of: $16\ (2)^{-4}$

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5. Find the value of: 4^{-3}

(1) -12 (3) 64

(2) $\frac{1}{64}$ (4) $\frac{1}{12}$

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