

7th – Exponents & Power - II



Statement Problems:

1. By what number should $(-3)^{-2}$ be multiplied so that the product may be 9?
2. By what number should $(-12)^{-1}$ be divided so that the quotient may be equal to $(-4)^{-1}$?
3. By what number should $(24)^{-1}$ be divided so that the quotient may be equal to $(4)^{-1}$?

Q: Simplify:

1	$\left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{3}\right)^{-2} + \left(\frac{1}{4}\right)^{-2}$
2	$\frac{\left(\frac{3}{2}\right)^{-5} \times \left(\frac{3}{2}\right)^4}{\left(\frac{3}{2}\right)^{-4} \div \left(\frac{3}{2}\right)^{-4}}$
3	$\left[6^{-2} + \left(\frac{3}{2}\right)^{-2}\right]^{-1}$

Q: Find the value of x:

1	$\left(\frac{3}{4}\right)^{-9} \times \left(\frac{3}{4}\right)^{-7} = \left(\frac{3}{4}\right)^{4x}$
2	$\left(\frac{2}{9}\right)^{-6} \times \left(\frac{2}{9}\right)^3 = \left(\frac{2}{9}\right)^{2x-1}$
3	$\left(\frac{-6}{11}\right)^{-2} \div \left[\left(\frac{-6}{11}\right)^x\right]^{-1} = \left[\left(\frac{-6}{11}\right)^2\right]$

When expressed as a number between 0 and 1, multiplied by an integral power of 10, a number is said to be in **Standard Form**.

Q1. Write the following numbers in standard form.

1. 15,000
2. 259000
3. 39087.8

Q2. Write the following numbers in usual form:

1. 3.2×10^5
2. 7.383×10^9

