

Reciprocals

A) Find the reciprocal of the following in exponential form with the positive exponent.

1) $\left(\frac{1}{9}\right)^2$

2) $\left(\frac{5}{8}\right)^3$

3) 6^7

B) Find the reciprocal of the following in exponential form with the negative exponent.

1) 7^9

2) $\left(-\frac{2}{5}\right)^5$

3) $\left(\frac{1}{4}\right)^6$

C) 1) If $x \cdot \left(\frac{1}{8}\right)^3 = 1$, find the positive exponent.

_____ exponential form with the

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2) What is the multiplicative inverse of 7^{-2} in exponential form with the negative exponent.

_____ exponential form with

3) Check whether $\left(\frac{6}{7}\right)^{-2}$ is the multiplicative inverse of $\left(\frac{7}{6}\right)^2$.

D) 1) Which of the following is the multiplicative inverse of $\left(\frac{4}{3}\right)^{-2}$?

i) $\left(\frac{4}{3}\right)^2$

ii) $\left(\frac{2}{3}\right)^{-2}$

iii) $\left(\frac{3}{2}\right)^2$

iv) $\left(\frac{3}{4}\right)^2$

2) What is the reciprocal of 5^6 ?

i) 6^5

ii) $\left(\frac{1}{5}\right)^{-6}$

iii) $\left(\frac{1}{5}\right)^6$

iv) 6^{-5}