

Reciprocals

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

1) 4^{-3}

2) $\left(\frac{3}{7}\right)^{-8}$

3) $\left(\frac{1}{5}\right)^4$

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

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

2) $\left(\frac{9}{8}\right)^{-6}$

3) 8^5

C) 1) If $16 = x \cdot \left(\frac{4}{5}\right)^2$, find x in exponential form with the negative exponent

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2) Check whether 9^{-4}

3) What is the multiplicative inverse of 8^5 in exponential form with the positive exponent

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D) 1) What is the reciprocal of $\left(\frac{7}{2}\right)^{-5}$?

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

ii) $\left(\frac{2}{7}\right)^5$

iii) $\left(-\frac{7}{2}\right)^5$

iv) $\left(\frac{2}{7}\right)^{-5}$

2) Which of the following is the multiplicative inverse of $\left(\frac{3}{8}\right)^9$?

i) $\left(\frac{3}{5}\right)^9$

ii) $\left(\frac{3}{8}\right)^{-9}$

iii) $\left(\frac{8}{3}\right)^{-9}$

iv) $\left(\frac{5}{8}\right)^9$

Reciprocals

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

1) 4^{-3}

2) $\left(\frac{3}{7}\right)^{-8}$

3) $\left(\frac{1}{5}\right)^4$

 4^3

 $\left(\frac{3}{7}\right)^8$

 5^4

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

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

2) $\left(\frac{9}{8}\right)^{-6}$

3) 8^5

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

 8^{-5}

C) 1) If $16 = x \cdot \left(\frac{4}{5}\right)^2$, find the negative exponent

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

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2) Check whether 9^{-4}

Yes

3) What is the multiplicative inverse of $\left(\frac{3}{5}\right)^7$ in exponential form with the positive exponent

 $\left(\frac{3}{5}\right)^7$

D) 1) What is the reciprocal of $\left(\frac{7}{2}\right)^{-5}$?

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

ii) $\left(\frac{2}{7}\right)^5$

iii) $\left(-\frac{7}{2}\right)^5$

iv) $\left(\frac{2}{7}\right)^{-5}$

2) Which of the following is the multiplicative inverse of $\left(\frac{3}{8}\right)^9$?

i) $\left(\frac{3}{5}\right)^9$

ii) $\left(\frac{3}{8}\right)^{-9}$

iii) $\left(\frac{8}{3}\right)^{-9}$

iv) $\left(\frac{5}{8}\right)^9$