Name : _____

Fractions: S1

Missing Base or Exponent

Find the value of x.

1) $\left(\frac{1}{3}\right)^{-x} = \frac{1}{81}$

x = _____

2) $(-x)^6 = \frac{4096}{729}$

x = _____

3) $\frac{512}{343} = x^3$

x = _____

4) $x^5 = -\frac{3125}{1024}$

x = _____

5) $\frac{128}{2187} = \left(\frac{2}{3}\right)^x$

6) $\left(-\frac{1}{6}\right)^x = \frac{1}{36}$

x = _____

7) $x^3 = -\frac{216}{125}$

x = _____

$\frac{16}{625} = \left(-\frac{2}{5}\right)^x$

x = _____

10) $x^4 = \frac{81}{2401}$

x = _____

$\frac{343}{8} = \left(\frac{7}{2}\right)^{-x}$

x = _____

13) For what value of x, x

f x, $\left(\frac{6}{5}\right)^{-x} = \frac{7776}{3125}$?

x = _____

x = _____

15) Identify the value of x such that $x^4 = \frac{1}{6561}$.

i) $\frac{1}{7}$

ii) $-\frac{1}{6}$

iii) $-\frac{1}{9}$ or $\frac{1}{9}$

iv) $-\frac{1}{8}$ or $\frac{1}{8}$

PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com