Name : _____

Missing Base or Exponent

Fractions: S3

Find the value of x.

1) $\left(-\frac{3}{8}\right)^{x} = -\frac{27}{512}$

x = _____

2) $\frac{2401}{6561} = (-x)^4$

x = _____

3) $-\frac{1}{7776} = x^5$

x = _____

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

x = _____

5) $\frac{729}{64} = \left(\frac{3}{2}\right)^{x}$

6) $x^2 = \frac{81}{64}$

x = _____

7) $-\frac{27}{125} = (-x)^3$

x = _____

$\left(\frac{6}{5}\right)^{-x} = \frac{36}{25}$

x = _____

10) $x^6 = \frac{1}{729}$

x = _____

$-\frac{8}{343} = x^3$

x = _____

13) For what value of x, x

f x, $\left(-\frac{2}{3}\right)^{x} = -\frac{32}{243}$?

x = _____

x = _____

15) Identify the value of x such that $x^2 = \frac{1}{25}$.

i) $-\frac{1}{3}$ or $\frac{1}{3}$

ii) -5 or 5

iii) $-\frac{1}{4}$ or $\frac{1}{4}$

iv) $-\frac{1}{5}$ or $\frac{1}{5}$