

Name _____

Missing Base or Exponent

Find the value of x in the following expressions.

1) $\left(\frac{2}{3}\right)^x = \frac{16}{81}$ $x = 4$	2) $\left(\frac{5}{6}\right)^x = \frac{25}{36}$ $x = 2$
3) $\left(\frac{3}{5}\right)^x = \frac{125}{27}$ $x = -3$	4) $\left(\frac{4}{7}\right)^x = \frac{4}{7}$ $x = 1$
5) $x^3 = \frac{16}{729}$ $x = 2/9$	6) $x^{-2} = \frac{121}{64}$ $x = 8/11$
7) $x^{-2} = \frac{16}{9}$ $x = 3/4$	8) $\left(\frac{5}{2}\right)^x = \frac{2}{5}$ $x = -1$