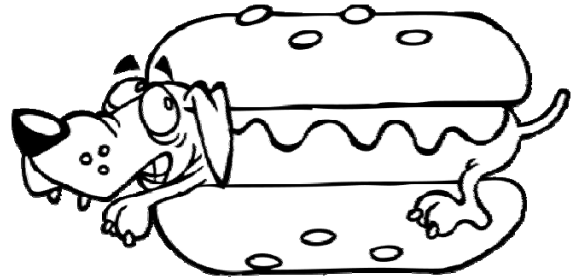


## Fraction with Exponents Step by Step Lesson

Find the end value of:

1)  $(\frac{5}{7})^2$

2)  $(\frac{7}{9})^{-3}$



**Explanation:**

The exponent tells us what we should do to both the numerator and denominator.

1) In this case, it is tell us to square both the numerator and denominator. It would be written as:

$$(\frac{5}{7})^2 = (\frac{5 \times 5}{7 \times 7}) = \frac{25}{49}$$

2) In this case, it is tell us to find the negative cube of both the numerator and denominator. The negative value in the exponent tells us that we should take the reciprocal of the value:

$$(\frac{7}{9})^{-3} = (\frac{9}{7})^3 \text{ (reciprocal removes negative exponent.)}$$

$$(\frac{9}{7})^3 = (\frac{9 \times 9 \times 9}{7 \times 7 \times 7}) = \frac{729}{343}$$

