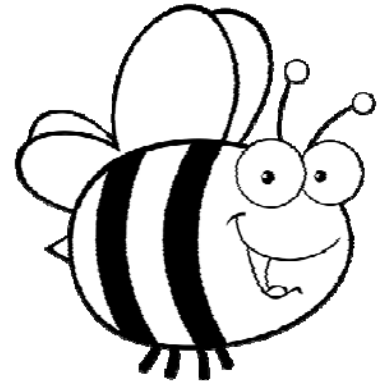# Fraction with Exponents Guided Lesson Explanation

1) $(\frac{6}{7})^{-2}$

Step 1) We know that we can remove the negative portion of the exponent by finding the reciprocal of the values given. This can be re-written as: $(\frac{7}{6})^2$

Step 2) Find the square of the numerator and denominator to complete the problem.

$(\frac{7 \times 7}{6 \times 6}) = (\frac{49}{36})$

2) $(\frac{3}{10})^5 =$

Both the numerator and denominator will be calculated to the 5th power:

$(\frac{3}{10})^5 = (\frac{3 \times 3 \times 3 \times 3 \times 3}{10 \times 10 \times 10 \times 10 \times 10}) = \frac{243}{100000}$

3) $(\frac{3}{5})^{-5} =$

Step 1) We know that we can remove the negative portion of the exponent by finding the reciprocal of the values given. This can be re-written as: $(\frac{5}{3})^5 =$

Both the numerator and denominator will be calculated to the 5th power:

$(\frac{5}{3})^5 = (\frac{5 \times 5 \times 5 \times 5 \times 5}{3 \times 3 \times 3 \times 3 \times 3}) = \frac{3125}{243}$