

On the half day 11-25-15, students worked with Mrs. Cole to figure out if Malia's strategy would work for each of the fractions.

We decided to think about a dollar, and how the denominators could be used to EQUALLY divide the dollar.

1 Malia found a "short cut" to find the decimal representation of the fraction $\frac{117}{250}$. Rather than use long division she noticed that $250 \times 4 = 1000$.

She then noticed that: $\frac{117}{250} = \frac{117 \times 4}{250 \times 4} = \frac{468}{1000} = 0.468$

(a) For which of the following fractions does Malia's strategy work to find the decimal representation?

$$\frac{1}{3}, \frac{3}{4}, -\frac{6}{25}, \frac{18}{7}, \frac{13}{8}, -\frac{113}{40}$$

For each one for which the strategy **does** work, use the strategy to find the decimal representation.

(b) For what denominators will Malia's strategy work? Explain your answer.

Scientific Notation:

(Place value)

$$3.48 \times 10^{-3} = .00348 \quad 3.48 \times 10^3 = 3,480$$

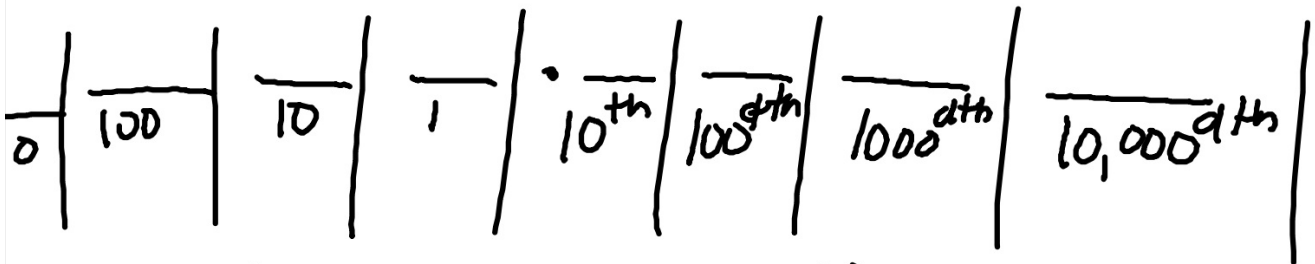
Exponents: (multiplying)

If we expand the number to represent the exponent:

$$(3.48)^3 = 3.48 \times 3.48 \times 3.48$$

$$3.48^{-3} = \frac{1}{3.48^3}$$

Place value differ in MULTITUDES of 10



$$1 \times 10 = 10$$

$$10 \times 10 = 100$$

$$100 \times 10 = 1000$$

$$10 \times 10 = 100$$

$$100 \times 10 = 1000$$

$$1000 \times 10 = 10,000$$

Smaller by 2 places

2.48×10^{-2}

We found fraction equivalences for scientific Notation

→ Fraction.

$.0248$

$\frac{248}{10000}$

Step 1- turn the notation to decimal

Step 2- turn the decimal to fraction

3.68×10^{-4} → Fraction

0.000368

$\frac{368}{1000000}$

0.000368×10^{-4}
 $\frac{368}{1000000}$

This was Dorian N Work

