Small Group Activity - Review of Equivalent Fractions

Materials
one Fraction Bar Kit per student

Work as a group to answer these questions. Each student must write the answers in their exercise pad.

1. a. Put the 1 fraction bar in front of you. This represents 1 whole.

   b. Line up the $\frac{1}{2}$ fraction bar below it. These two bars are the same length. This shows that 2 halves equals 1 whole. In your exercise book write:

$$\frac{2}{2}=1.$$

   c. Investigate: Line up the other fraction bars. What other fractions equal 1 whole?

   d. Generalise: All fractions that equal 1 whole have a certain property. What is it?

2. a. Put the $\frac{1}{2}$ fraction bar in front of you. Line up the $\frac{1}{4}$ fraction bar below it. This shows that

$$\frac{1}{2}=\frac{2}{4}$$

   We say that "$\frac{2}{4}$ is **equivalent** to $\frac{1}{2}$.". We say that "$\frac{1}{2}$ and $\frac{2}{4}$ are **equivalent** fractions."

   $\frac{1}{2}$ and $\frac{2}{4}$ are two names for the same amount.

   b. Investigate: what other fractions are equivalent to $\frac{1}{2}$? List them in your exercise book as follows:

$$\frac{1}{2}=\frac{2}{4}=\frac{3}{6}=$$

   c. Generalise: What is the pattern in part b?

   d. Complete this sentence:

$$\frac{1}{2}=\frac{\quad}{20}=\frac{27}{\quad}$$

   d. Can you complete this sentence? Why or why not?

$$\frac{1}{2}=\frac{\quad}{9}$$

3. a. Investigate: What fractions are equivalent to $\frac{1}{3}$? Write your answer in the form:

$$\frac{1}{3}=\frac{\quad}{\quad}=\frac{\quad}{\quad}=\frac{\quad}{\quad}=\ldots$$

   b. Generalise: Complete this sentence:

$$\frac{1}{3}=\frac{\quad}{15}=\frac{8}{\quad}=\frac{\quad}{450}$$

4. a. Investigate: What fractions are equivalent to $\frac{2}{3}$? Write your answer in the form:

$$\frac{2}{3} = \_ = \_ = \_ = \ldots$$

b. Generalise: Complete this sentence:

$$\frac{2}{3} = \frac{\_}{9} = \frac{16}{\_\_} = \frac{\_\_\_}{123}$$

5. a. Generalise: What is the overall pattern for finding equivalent fractions?

b. Write ten fractions equivalent to $\frac{3}{4}$.

6. a. $\frac{3}{15}$, $\frac{2}{10}$, $\frac{1}{5}$ and $\frac{4}{20}$ are equivalent fractions. They are different names for the same amount. Which name is the simplest? Justify your answer.

b. What is the simplest name for the fraction $\frac{15}{18}$?

Small Group Activity **Fraction – Decimal – Percent Equivalents**

Materials: one 100 Grids worksheet per student.

1. There are 100 small squares in a big square. Let the big square equal 1 whole.
   On the first diagram, shade in 1 small square.
   Each small square is $\frac{1}{100}$ of the big square, or 1%. As a decimal fraction, $\frac{1}{100} = 0.01$
   Below the square, write
   $$\frac{1}{100} = 0.01 = 1\%$$
2. On the next diagram, shade in one row of squares. Since there are 10 rows, you have shaded $\frac{1}{10}$ or 0.1. You shaded 10 small squares, or 10%. Below the square, write
   $$\frac{1}{10} = 0.1 = 10\%.$$
3. Shade a diagram as shown below. For each, write the fraction-decimal-percent sentence.
   a. b.