Comparing Fractions

1. Put $>$, $<$, or $=$ in the box to make a true statement:

$$\frac{5}{8} \square \frac{5}{12}$$

Explain your answer.

2. Put $>$, $<$, or $=$ in the box to make a true statement:

$$\frac{3}{17} \square \frac{5}{17}$$

Explain your answer.

3. Is $\frac{6}{6}$ greater than $\frac{2}{2}$? Answer:_____ Explain your answer.

4. Which are bigger, fifths ($\frac{1}{5}$) or ninths ($\frac{1}{9}$)? Explain your answer.

5. Put numbers in the boxes to make the statement true. Explain your answer.

$$\frac{3}{\square} > \frac{3}{\square}$$

6. Put numbers in the boxes to make the statement true. Explain your answer.

$$\frac{\square}{11} > \frac{\square}{11}$$

7. Istabrag said:

> "The more people there are, the less each person gets."

Use Istabrag's idea to help you explain how to fill in the box with $>$, $<$, or $=$ to make a correct statement.

$$\frac{1}{7} \square \frac{1}{4}$$

8. Put the following fractions in order from least to greatest.

$$\frac{1}{5}, \quad \frac{1}{9}, \quad \frac{1}{7}, \quad \frac{1}{8}, \quad \frac{1}{6}$$

least $\rightarrow$ ____, ____, ____, ____, ____ $\leftarrow$ greatest

9. For each of the fractions below, decide if it is less than $\frac{1}{2}$, or greater than $\frac{1}{2}$. Explain your answers.

$$\frac{3}{8} \square \frac{1}{2}$$

$$\frac{7}{8} \square \frac{1}{2}$$

$$\frac{3}{10} \square \frac{1}{2}$$

$$\frac{7}{12} \square \frac{1}{2}$$

10. Put the following fractions in order from greatest to least.

$$\frac{1}{4},\ \frac{1}{8},\ \frac{1}{7},\ \frac{1}{5},\ \frac{1}{6}$$

greatest $\rightarrow$ _____, _____, _____, _____, _____ $\leftarrow$ least

[The following hint was given to the students after they attempted the problems. Students were then allowed to work on the problem some more.] "The more pieces you divide something into, the smaller each piece will be."

If we divide a candy bar into 4 equal pieces will each piece be greater or smaller than if we had divided the candy bar into 8 equal pieces? What does this tell us about how $\frac{1}{4}$ and $\frac{1}{8}$ compare?