Name Jack Date

1. Compare the pairs of fractions by reasoning about the size of the units. Use >, <, or =.

a. 1 fourth > 1 fifth

b. 3 fourths > 3 fifths

c. 1 tenth > 1 twelfth

d. 7 tenths > 7 twelfths

2. Compare by reasoning about the following pairs of fractions with the same or related numerators. Use >, <, or =. Explain your thinking using words, pictures, or numbers. Problem 2(b) has been done for you.

a. $\frac{3}{5} < \frac{3}{4}$

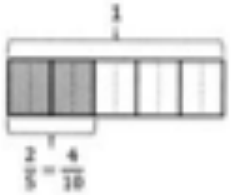
1 fifth < 1 fourth

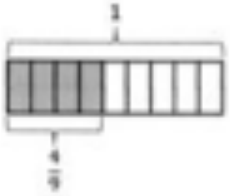
$\frac{3}{5} < \frac{3}{4}$ (so) → fourths are larger units than fifths.

b. $\frac{2}{5} < \frac{4}{9}$

because $\frac{2}{5} = \frac{4}{10}$

4 tenths is less than 4 ninths because tenths are smaller than ninths.





c. $\frac{7}{11} > \frac{7}{13}$

$\frac{1}{11} > \frac{1}{13}$ so $\frac{7}{11} > \frac{7}{13}$.

The number of units selected is the same. But elevenths are larger than thirteenths, so 7 elevenths is greater than $\frac{7}{13}$.

d. $\frac{6}{7} > \frac{12}{15}$

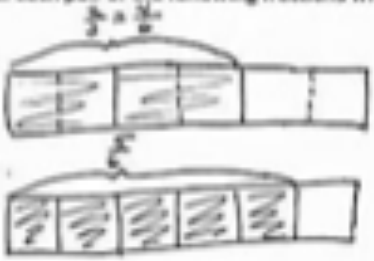
$\frac{6}{7} = \frac{6 \times 2}{7 \times 2} = \frac{12}{14}$

$\frac{12}{14} > \frac{12}{15}$

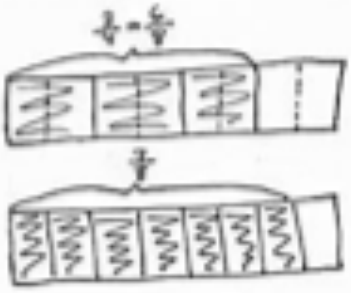
Fourteenths are larger units than fifteenths

3. Draw two tape diagrams to model each pair of the following fractions with related denominators. Use >, < or = to compare.

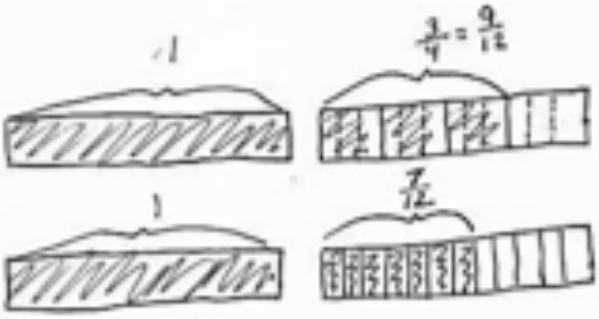
a. $\frac{2}{3}$ < $\frac{5}{6}$



b. $\frac{3}{4}$ < $\frac{7}{8}$

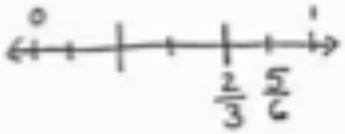


c. $1\frac{3}{4}$ > $1\frac{7}{12}$

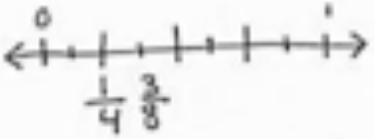


4. Draw one number line to model each pair of fractions with related denominators. Use >, < or = to compare.

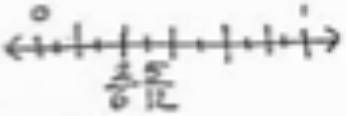
a. $\frac{2}{3} < \frac{5}{6}$



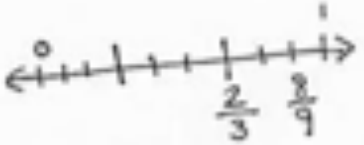
b. $\frac{3}{4} > \frac{1}{4}$



c. $\frac{3}{6} < \frac{5}{12}$



d. $\frac{8}{9} > \frac{2}{3}$

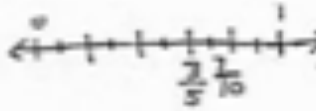


5. Compare each pair of fractions using >, < or =. Draw a model if you choose to.

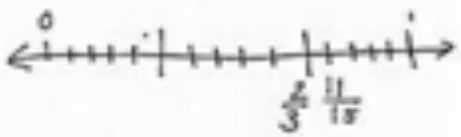
a. $\frac{3}{4} > \frac{2}{3}$

b. $\frac{4}{5} > \frac{8}{12}$

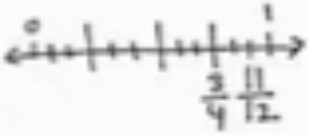
c. $\frac{7}{10} > \frac{2}{5}$



d. $\frac{3}{5} < \frac{11}{15}$



e. $\frac{3}{4} < \frac{11}{12}$

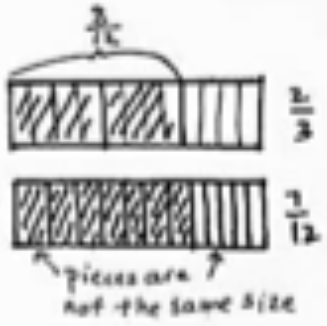


f. $\frac{7}{8} > \frac{7}{9}$

g. $1\frac{1}{3} > 1\frac{1}{6}$

h. $1\frac{2}{3} > 1\frac{4}{7}$

6. Timmy drew the picture to the right and claimed that $\frac{2}{3}$ is less than $\frac{7}{12}$. Evan says he thinks $\frac{2}{3}$ is greater than $\frac{7}{12}$. Who is correct? Support your answer with a picture.



If Timmy drew in the lines to turn the thirds into twelfths he would see that $\frac{2}{3} = \frac{8}{12}$. Evan is correct, $\frac{2}{3} > \frac{7}{12}$.