

Name Jack Date _____

1.

- a. Plot the following points on the number line without measuring.

L $\frac{1}{3}$

K $\frac{5}{8}$

M $\frac{7}{12}$



- b. Use the number line in (a) to compare the fractions by writing
- $>$
- ,
- $<$
- , or
- $=$
- on the lines:

L $\frac{7}{12} > \frac{1}{3}$

K $\frac{7}{12} < \frac{5}{8}$

2.

- a. Plot the following points on the number line without measuring.

L $\frac{11}{12}$

K $\frac{1}{4}$

M $\frac{3}{8}$



- b. Select two fractions from Problem 2 and use the given number line to compare them by writing
- $>$
- ,
- $<$
- , or
- $=$
- .

$$\frac{3}{8} < \frac{11}{12}$$

- c. Explain how you plotted the points in 2(a).

I decomposed $\frac{1}{2}$ into 2 parts to find $\frac{1}{4}$. I decomposed a fourth into 2 parts to find $\frac{3}{8}$. Decomposing a fourth into 3 parts helped me find $\frac{11}{12}$.

COMMON
CORELesson 12:
Date:Reason using benchmarks to compare a two fractions on the number
line.
11/12/12engage^{ny}

S.C.8



3. Compare the fractions given below by writing $>$ or $<$ on the lines.

Give a brief explanation for each answer referring to benchmark fractions of 0 , $\frac{1}{2}$ and 1 .

a. $\frac{3}{4} > \frac{1}{2}$
 $\frac{3}{4}$ is greater than $\frac{1}{2}$

b. $\frac{1}{8} < \frac{1}{6}$
 $\frac{1}{8}$ is closer to 0 .

c. $\frac{1}{3} > \frac{1}{4}$
 $\frac{1}{3}$ is greater than $\frac{1}{4}$
 $\frac{1}{3}$ is less than $\frac{1}{2}$

d. $\frac{9}{10} > \frac{1}{2}$
 $\frac{9}{10}$ is close to 1
 $\frac{1}{2}$ is close to $\frac{1}{2}$

e. $\frac{1}{2} < \frac{1}{3}$
 $\frac{1}{2}$ is $\frac{1}{6}$ away from 1
 $\frac{1}{3}$ is $\frac{2}{6}$ away from 1

f. $\frac{1}{2} < \frac{1}{4}$
 $\frac{1}{2}$ is less than $\frac{1}{2}$
 $\frac{1}{4}$ is equal to $\frac{1}{2}$

g. $\frac{11}{20} > \frac{1}{2}$
 $\frac{11}{20}$ is more than $\frac{1}{2}$
 $\frac{10}{20}$ is equal to $\frac{1}{2}$

h. $\frac{11}{12} > \frac{1}{2}$
 $\frac{11}{12}$ is closer to 1

i. $\frac{49}{100} < \frac{11}{20}$
 $\frac{49}{100}$ is less than $\frac{1}{2}$
 $\frac{51}{100}$ is more than $\frac{1}{2}$

j. $\frac{7}{16} < \frac{11}{20}$
 $\frac{7}{16}$ is less than $\frac{1}{2}$
 $\frac{11}{20}$ is more than $\frac{1}{2}$