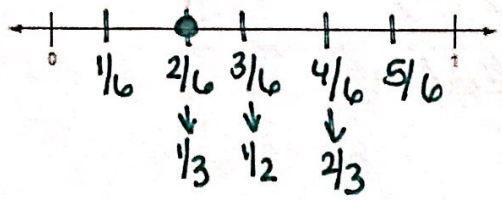
Foundations of Algebra
Day 3: Fractions on a Number Line
Practice Assignment

Unit 1: Number Sense & Quantity

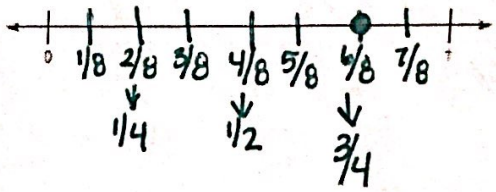
Name: Key Practice

0 25 50 75 100

1. Divide & label the number line into sixths. Plot $\frac{1}{3}$.



2. Divide & label the number line into eighths. Plot $\frac{3}{4}$.



2. Order the fractions from least to greatest. Show or explain your reasoning.

a.

$\frac{5}{11}, \frac{5}{6}, \frac{5}{13}, \frac{5}{3}, \frac{5}{17}, \frac{5}{8}$

$\frac{5}{17}, \frac{5}{13}, \frac{5}{11}, \frac{5}{8}, \frac{5}{6}, \frac{5}{3}$

b.

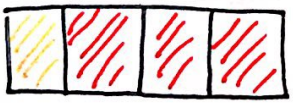
$\frac{7}{5}, \frac{7}{15}, \frac{7}{4}, \frac{7}{22}, \frac{7}{9}, \frac{7}{12}$

$\frac{7}{22}, \frac{7}{15}, \frac{7}{12}, \frac{7}{9}, \frac{7}{5}, \frac{7}{4}$

the bigger the denominator, the smaller the pieces

3. Create a rectangle that represents the following fractions and their colors:

a. ¼ yellow & ¾ red

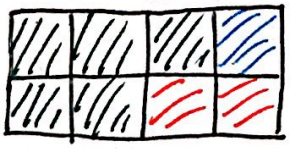


b. ½ red, ¼ blue, & ¼ yellow

2/4

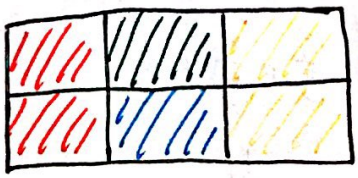
c. $\frac{5}{8}$ green, $\frac{1}{4}$ red, & $\frac{1}{8}$ blue

2/8



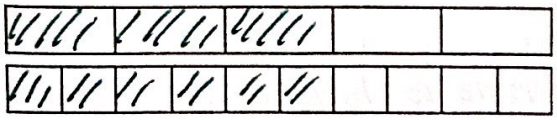
d. $\frac{1}{3}$ red, $\frac{1}{6}$ blue, $\frac{1}{6}$ green, & $\frac{1}{3}$ yellow

2/6 2/6

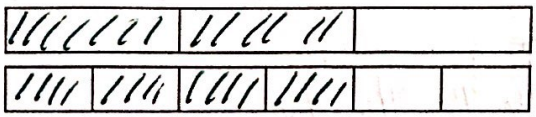


4. Determine which fraction is equivalent to the following by shading in the appropriate boxes.

a. Show that $\frac{3}{5}$ is equivalent to $\frac{6}{10}$.



b. Show that $\frac{2}{3}$ is equivalent to $\frac{4}{6}$.



5. Simplify each fraction using the GCF or Prime Factorization Method.

a. $\frac{6}{16} \div 2 = \frac{3}{8}$ b. $\frac{21}{24} \div 3 = \frac{7}{8}$ c. $\frac{12}{30} \div 6 = \frac{2}{5}$ d. $\frac{42}{54} \div 6 = \frac{7}{9}$

6. Each year, AHS puts on a talent show to showcase student talent. This year, 36 students are participating. Create a fraction to show what portion of the show is each talent and then simplify your fraction. You will also include what the GCF was for each fraction that you simplified. ©CarnegieLearning

Type of Act	Number of Acts	Portion of Show	GCF	Simplified Portion of Show
Singing	10	10/36	2	5/18
Dancing	9	9/36	9	1/4
Playing an instrument	8	8/36	4	2/9
Lip-synching	4	4/36	4	1/9
Other	5	5/36	none	5/36

7. Convert each fraction to either an improper fraction or mixed number. Make sure your fraction is simplified.

a. $\frac{21}{6}$ 3 wholes $\frac{6}{6} + \frac{6}{6} + \frac{6}{6} + \frac{3}{6}$ $3\frac{3}{6} = 3\frac{1}{2}$

b. $2\frac{1}{5}$ $\frac{5}{5} + \frac{5}{5} + \frac{1}{5}$ $\frac{11}{5}$

c. $\frac{29}{5}$ 5 wholes $\frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{4}{5}$ $5\frac{4}{5}$

d. $4\frac{3}{5}$ $\frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{3}{5}$ $\frac{23}{5}$