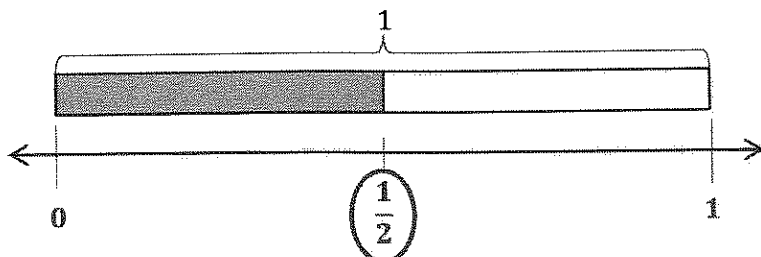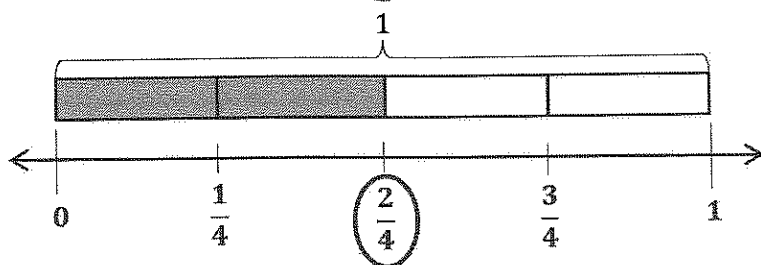# G4-M5-Lesson 11

1. Label each number line with the fractions shown on the tape diagram. Circle the fraction that labels the point on the number line and also names the shaded part of the tape diagram.
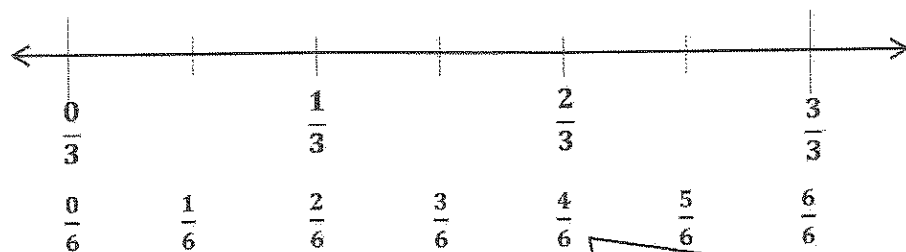
a.

The number line and tape diagram show that $\frac{2}{4}$ is equivalent to $\frac{1}{2}$.

b.

2. Write number sentences using multiplication to show the fraction represented in 1(a) is equivalent to the fraction represented in 1(b).

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

3.

a. Partition a number line from 0 to 1 into thirds. Decompose $\frac{2}{3}$ into 4 equal lengths.

To decompose 2 thirds into 4 equal parts, each unit is partitioned into two. To name the new, smaller units, I decompose each third. Thirds become sixths, so $\frac{2}{3} = \frac{4}{6}$.

Lesson 11:   Explain fraction equivalence using a tape diagram and the number line, and relate that to the use of multiplication and division.

EUREKA MATH™

b.   Write 1 multiplication and 1 division sentence to show what fraction represented on the number line is equivalent to $\frac{2}{3}$.

$$\frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6} \qquad\qquad \frac{4}{6} = \frac{4 \div 2}{6 \div 2} = \frac{2}{3}$$

EUREKA MATH   Lesson 11:   Explain fraction equivalence using a tape diagram and the number line, and relate that to the use of multiplication and division.   13

©2015 Great Minds. eureka-math.org
G4-M1-HWH-1.3.0-07.2015