Name:_____ Date:_____

Directions:  Make a model and record the multiplication and division equation for each situation.

1.  How many $\frac{2}{3}$ portions are in 6?

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |

| Multiplication Equation: | Division Equation: |
|---|---|
| | |

2.  How many $\frac{3}{4}$ portions are in 7?

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |

| Multiplication Equation: | Division Equation: |
|---|---|
| | |

3.  How many $\frac{3}{5}$ portions are in 6?



| Multiplication Equation: | Division Equation: |
|---|---|
| | |

4.  How many $\frac{3}{8}$ portions are in 2?
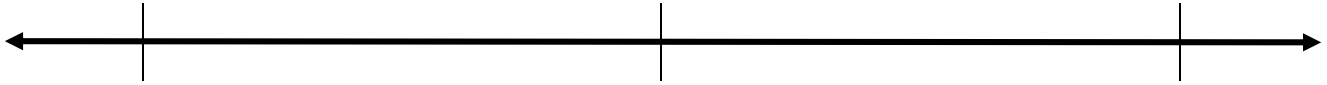
| Multiplication Equation: | Division Equation: |
|---|---|
|  |  |

Directions:  Complete the model, compute, then record the corresponding multiplication and division equation, and describe a situation for each situation.

5.  $\frac{5}{8} \div 2 =$

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| Multiplication Equation: | Division Equation: |
|---|---|
|  |  |
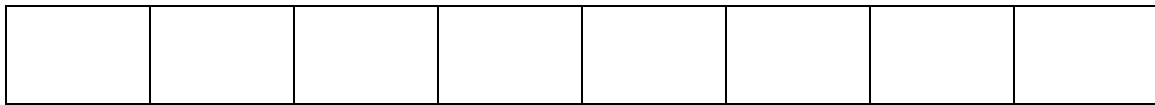
Situation description:

6.  $\frac{2}{3} \div 5 =$

| | |
|---|---|
| | |

| Multiplication Equation: | Division Equation: |
|---|---|
| | |

Situation description:

7.  $\frac{5}{6} \div 4 =$
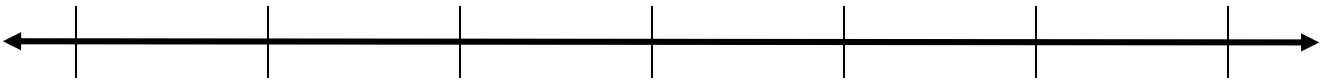
| Multiplication Equation: | Division Equation: |
|---|---|
| | |

Situation description:

8.  $\dfrac{2}{9} \div 4 =$

| Multiplication Equation: | Division Equation: |
|---|---|
|  |  |

Situation description:

**TEACHER NOTES (Example Responses)**

Directions:  Make a model and record the multiplication and division equation for each situation.

1.   How many $\frac{2}{3}$ portions are in 6?

Divide each whole into thirds. Shade 2/3 of the first whole.  Continue shading 2 portions. How many portions of 2? Here are 2 possible ways the diagram can be partitioned to show the quotient is 9.

| 1 | 3 | 4 | 6 | 7 | 9 |
|---|---|---|---|---|---|
| 1 | 3 | 4 | 6 | 7 | 9 |
| 2 | 2 | 5 | 5 | 8 | 8 |

| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times \dfrac{2}{3} = 6$ | $6 \div \dfrac{2}{3} = 9$ |

2.   How many $\frac{3}{4}$ portions are in 7?

Divide each whole into fourths. Shade 3/4 of the first whole.  Continue shading 3 portions. How many portions of 3 are there? There is 1 more section left, but 3 are needed to have a whole group.  That is why the quotient is $9\frac{1}{3}$.  Here are two possible ways to shade the diagram.
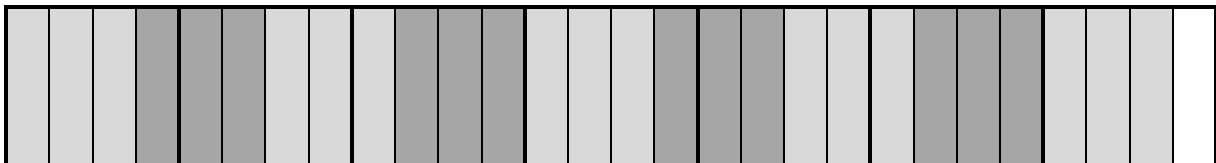
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 8 | 8 | 9 | 9 | 9 |  |

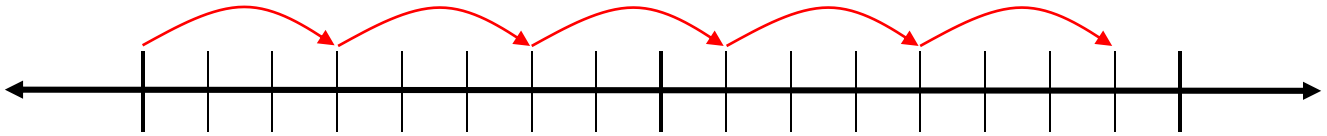| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times \dfrac{3}{4} = 7$ | $7 \div \dfrac{3}{4} = 9\dfrac{1}{3}$ |

3.  How many $\frac{3}{5}$ portions are in 6?
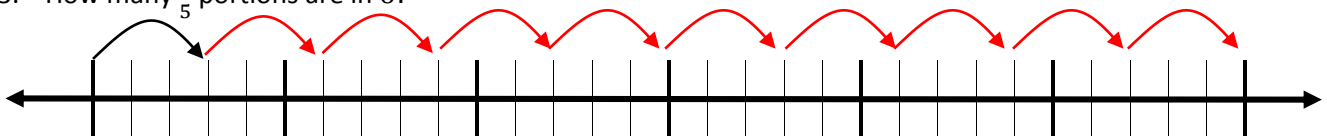
Continue drawing arrows to show 3/5 portions.  How many portions of 3/5 are shown by the arrows?

| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times \dfrac{3}{5} = 6$ | $6 \div \dfrac{3}{5} = 10$ |

4.   How many $\frac{3}{8}$ portions are in 2?



Partition the 2 into eighths.  Draw arrows to show 3/8 portions.  How many 3/8 portions are there?  There is 1 extra section of the 3 needed, so that makes $5\frac{1}{3}$ portions.

| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times \dfrac{3}{8} = 2$ | $2 \div \dfrac{3}{8} = 5\dfrac{1}{3}$ |

Directions:  Complete the model, compute, then record the corresponding multiplication and division equation, and describe a situation for each situation.

5.   $\frac{5}{8} \div 2 =$

Shade 5 of the 8ths.  Now divide all of the 8ths into 2 portions.  Can you see how 5 of the 16 portions are indicated?
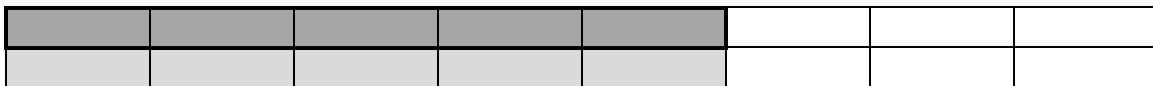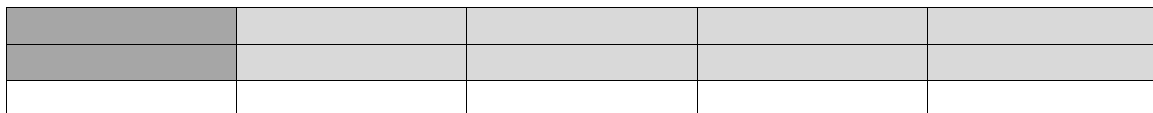


| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times 2 = \dfrac{5}{8}$ | $\dfrac{5}{8} \div 2 = \dfrac{5}{16}$ |

Situation description:

Sample:  Sam and Julie are sharing $\frac{5}{8}$ of a King-size candy bar equally.  How much of the candy bar will each eat?
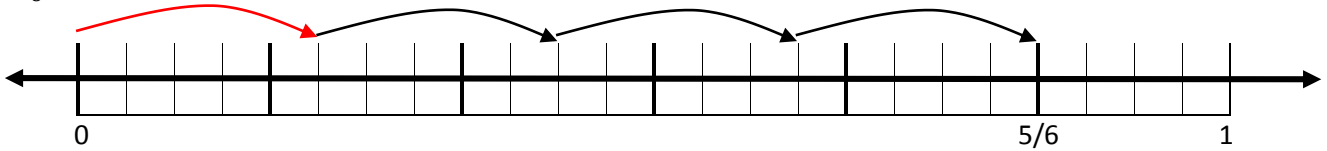
6.   $\frac{2}{3} \div 5 =$



Partition the area into thirds.  Shade 2 of them.  Now divide all of the portions into 5 sections.  How many sections are shaded in 1 of the 5 portions?

| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times 5 = \dfrac{2}{3}$ | $\dfrac{2}{3} \div 5 = \dfrac{2}{15}$ |

Situation description:

Sample:  Karla cut $\frac{2}{3}$ of a submarine sandwich into 5 equal portions.  How much of the sandwich is each portion?
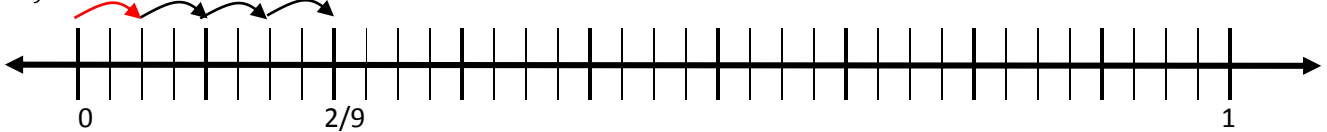
7.  $\frac{5}{6} \div 4 =$



0                                                                                                                      5/6                    1

Partition the line into sixths and show where 5/6 is on the number line.  Divide that section into 4 sections.  (If you divide each portion into 4 it is easy to see the whole is 24 portions and 5/6 is 20 of those portions.)  How many sections are in 1 of the 4 portions of 5/6 - indicated by 1 arrow.

| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times 4 = \dfrac{5}{6}$ | $\dfrac{5}{6} \div 4 = \dfrac{5}{24}$ |

Situation description:

Sample:  Frank has $\frac{5}{6}$ of a book left to read in 4 days.  How much of the book should he read each day to finish?

8.  $\frac{2}{9} \div 4 =$



0                                    2/9                                                                                                   1

Partition the line into ninths and show where 2/9 is on the number line.  Divide that section into 4 sections.  (If you divide each portion into 4 it is easy to see the whole is 36 portions and 2/9 is 8 of those portions.)  How many sections are in 1 of the 4 portions of the 36 (indicated by 1 arrow).

| Multiplication Equation: | Division Equation: |
|---|---|
| $? \times 4 = \dfrac{2}{9}$ | $\dfrac{2}{9} \div 4 = \dfrac{2}{36}$ |

Situation description:

Kyle has a rope that is $\frac{2}{9}$ of a yard long.  He needs to cut it into 4 equal pieces.  How much of a yard is each piece?