Illustrating Whole Number and Fraction Multiplication #2

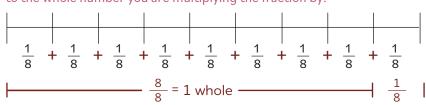
When multiplying a whole number by a fraction, it can be helpful to show what's happening using a **number line**. This can be done in a few easy steps!

Consider:
$$9 \times \frac{1}{8}$$

Step I: Graph the multiplication expression $9 \times \frac{1}{8}$ as repeated addition on a number line. Then simplify the fraction below.

Step 2: State the equation, including the product.

The number of spaces you will draw on the number line corresponds to the whole number you are multiplying the fraction by!



$$9\times\frac{1}{8}=1\frac{1}{8}$$

Part I: Graph each multiplication expression as repeated addition on a number line.

- 1. $9 \times \frac{5}{6}$
- 2. $10 \times \frac{2}{9}$
- 3. $8 \times \frac{3}{4}$
- 4. $13 \times \frac{4}{5}$
- 5. $6 \times \frac{6}{9}$

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Part 2: Now, state the product for each multiplication expression you graphed in Part 1.

1.
$$9 \times \frac{5}{6} =$$

4.
$$13 \times \frac{4}{5} =$$

2.
$$10 \times \frac{2}{9} =$$

5.
$$6 \times \frac{6}{9} =$$

3.
$$8 \times \frac{3}{4} =$$

Try these! Solve each of the following multiplication expressions using the two-step procedure described on page 1.

Step 1:

1.
$$7 \times \frac{2}{6} =$$

2.
$$8 \times \frac{2}{3} =$$

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

4.
$$4 \times \frac{5}{7} = -----$$