



# Interpret Diagrams

Let's compare products without multiplying.

## Warm-up

### Estimation Exploration: Fraction of a Whole Number

$$\frac{5}{3} \times 9,625$$

Record an estimate that is:

too low	about right	too high

## Activity 1

### Match the Diagram

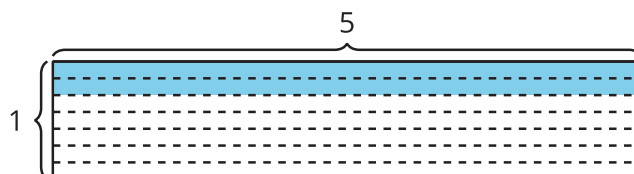
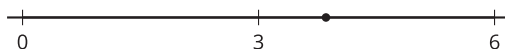
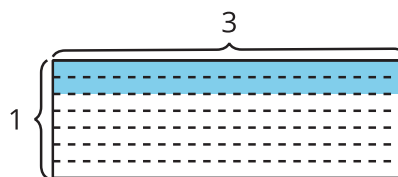
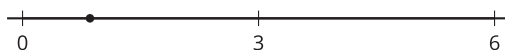
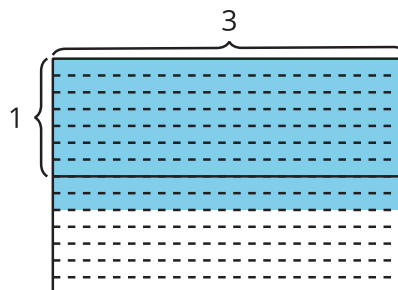
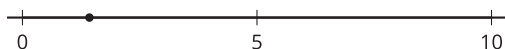
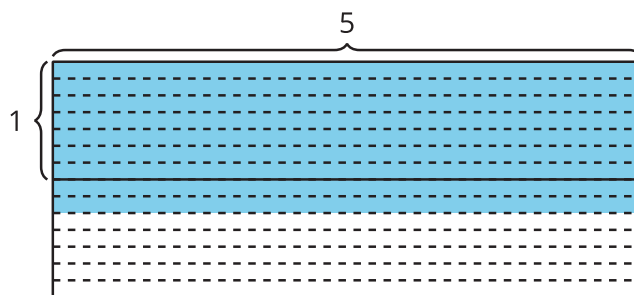
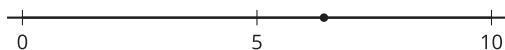
1. Match each expression to a number line and a diagram.

$$\frac{2}{7} \times 3$$

$$\frac{9}{7} \times 3$$

$$\frac{2}{7} \times 5$$

$$\frac{9}{7} \times 5$$



2. Write  $<$  or  $>$  in each blank to make the inequality true.

a.  $\frac{2}{7} \times 3$  \_\_\_\_ 3

b.  $\frac{9}{7} \times 3$  \_\_\_\_ 3

c.  $\frac{2}{7} \times 5$  \_\_\_\_ 5

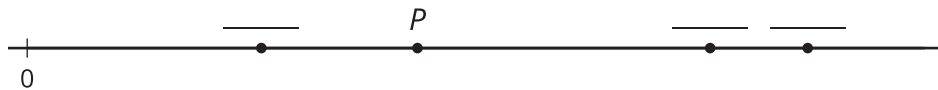
d.  $\frac{9}{7} \times 5$  \_\_\_\_ 5

## Activity 2

### Who Ran Farther?

- Priya ran to her grandmother's house.
- Jada ran twice as far as Priya.
- Han ran  $\frac{6}{7}$  as far as Priya.
- Clare ran  $\frac{14}{8}$  as far as Priya.
- Mai ran  $\frac{3}{5}$  times as far as Priya.

1. Which students ran farther than Priya? \_\_\_\_\_
2. Which students did not run as far as Priya? \_\_\_\_\_
3. List the runners in order, from the shortest distance to the longest distance. Explain or show your reasoning.
4. Point  $P$  represents how far Priya ran. Find the distance of each runner on the number line. Write the runner's initial in the blank. One runner does not have a point on the number line.



5. Label the distance for the missing runner on the number line.