Unit 6, Lesson 18

Compare without Multiplying

Let's compare expressions without evaluating them.

Warm-up

Notice and Wonder: Expressions and Number Lines

What do you notice? What do you wonder?



$\frac{2}{3} \times 5$

Activity 1

Approximate Location

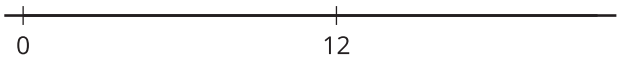
1. Label each expression at its approximate location on the number line.

Partner A

a. $\frac{2}{5} \times 12$

b. $\frac{5}{3} \times 12$

c. $\frac{7}{7} \times 12$

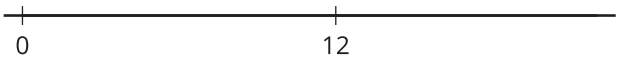


Partner B

a. $\frac{4}{7} \times 12$

b. $\frac{8}{5} \times 12$

c. $\frac{9}{9} \times 12$



2. Write a number in each box to make the statement true.

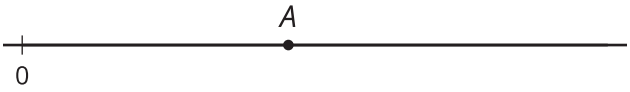
a. $\frac{\square}{11} \times 12 > 12$

b. $\frac{\square}{15} \times 12 = 12$

c. $\frac{13}{\square} \times 12 < 12$

Activity 2

An Unknown Number



1. The number A is shown on the number line. Label the approximate location of the value of each expression. Explain or show your reasoning.
   - $\frac{1}{4} \times A$
   - $2 \times A$
   - $\frac{13}{8} \times A$
   - $\frac{2}{3} \times A$

2. Is $\frac{13}{8} \times \frac{11}{39}$ less than, greater than, or equal to $\frac{11}{39}$? Explain or show your reasoning.

3. Is $\frac{2}{3} \times \frac{17}{53}$ less than, greater than, or equal to $\frac{17}{53}$? Explain or show your reasoning.