Unit 5, Lesson 4

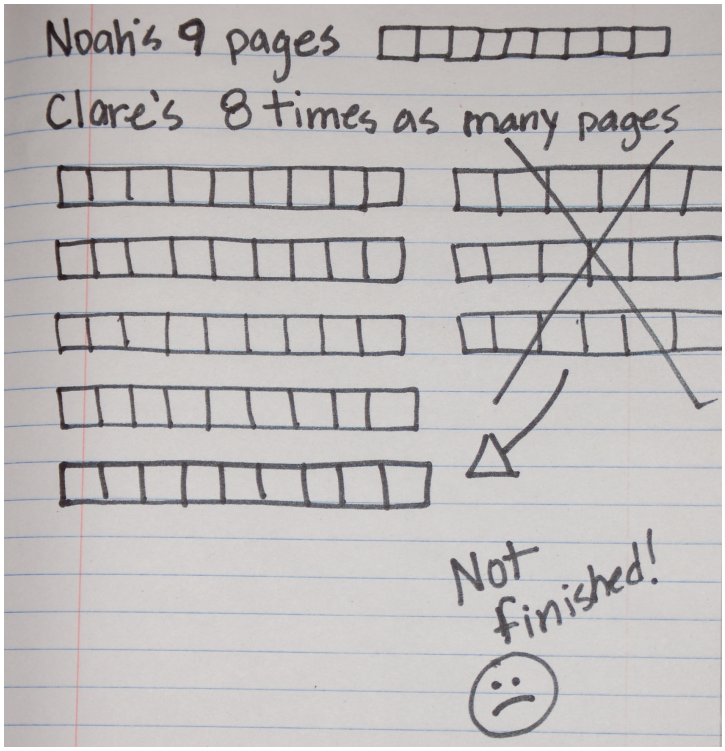
Solve Multiplicative Comparison Problems with Large Numbers

Let's represent and solve multiplicative comparison problems, with greater numbers.

Warm-up

Notice and Wonder: Too Many Times More?

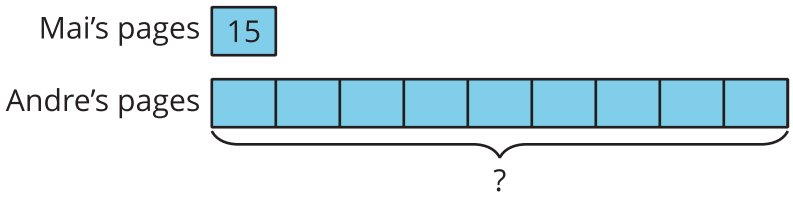
What do you notice? What do you wonder?



Activity 1

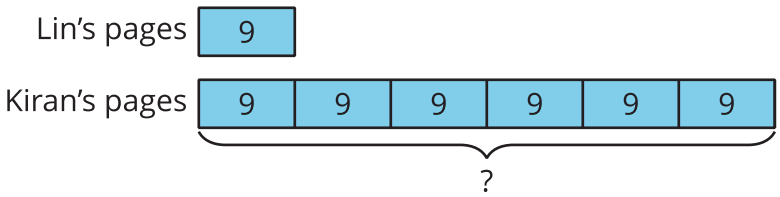
A New Kind of Diagram

1. Mai and Andre compare the numbers of pages they read on the first day of the reading competition.



What would be a good estimate for the number of pages Andre read?

2. The diagram shows the pages Lin and Kiran each read on 1 day of the reading competition.



a. Complete the statement and explain how you know.

Kiran read _____ times as many pages as Lin.

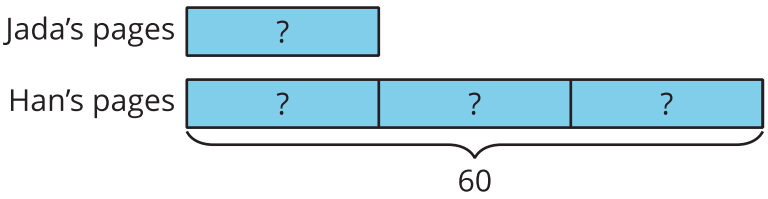
_____

_____

b. Write a multiplication equation that compares the pages read by Lin and by Kiran.

c. How many total pages did Kiran read?

3. Jada read some pages. Han read 60 pages altogether.

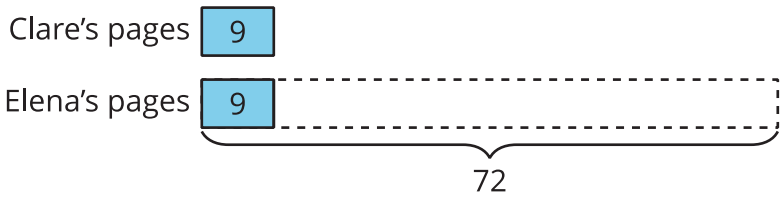


a. How many times as many pages as Jada did Han read? Explain how you know.

b. Write a multiplication equation to compare the pages Han read with the number of pages Jada read. Use a symbol to represent the unknown.

c. How many pages did Jada read? Explain how you know.

4. Elena reads 72 pages. Clare reads 9 pages.



a. How is this diagram different from the earlier diagrams?

b. Write a multiplication equation to compare the pages read by Elena and by Clare. Use a symbol to represent the unknown.

c. How many times the number of pages as Clare does Elena read?

Activity 2

Who Read More?

For each situation:

- Write an equation to represent the situation. Use a symbol to represent the unknown.
- Draw a diagram to show the comparison.
- Answer the question about the situation.

1. Lin read 7 books. Diego read 8 times as many books as Lin.
   a. Equation:
   b. Diagram:
   c. How many books did Diego read?

2. Tyler has some books. Clare has 72 books, which is 12 times as many books as Tyler.

   a. Equation:

   b. Diagram:

   c. How many books does Tyler have?

3. Noah read 13 books. Elena read 130 books.

   a. Equation:

   b. Diagram:

   c. Complete the statement:

_____ read _____ times as many books as _____.