

Math 7 Period \_\_\_\_\_  
7.4.14 Homework Set

Name \_\_\_\_\_  
Date \_\_\_\_\_

1. A student estimated that it would take 3 hours to write a book report, but it actually took her 5 hours. What is the percent error for her estimate?
2. A radar gun measured the speed of a baseball at 103 miles per hour. If the baseball was actually going 102.8 miles per hour, what was the percent error in this measurement?
3. It took 48 minutes to drive downtown. An app estimated it would be less than that. If the error was 20%, what was the app's estimate?
4. A farmer estimated that there were 25 gallons of water left in a tank. If this is an underestimate by 16%, how much water was actually in the tank?

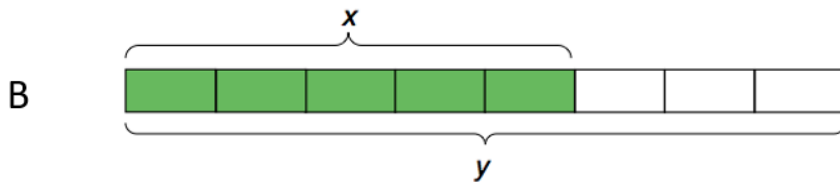
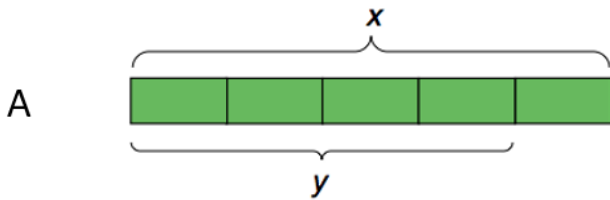
5. For each story, write an equation that describes the relationship between the two quantities.

A. Diego collected  $x$  kg of recycling. Lin collected  $\frac{2}{5}$  more than that.

B. Lin biked  $x$  km. Diego biked  $\frac{3}{10}$  less than that.

C. Diego read for  $x$  minutes. Lin read  $\frac{4}{7}$  of that.

6. For each diagram, decide if  $y$  is an increase or a decrease of  $x$ . Then determine the percentage.



(from Unit 4, Lesson 12)