

Lesson 22

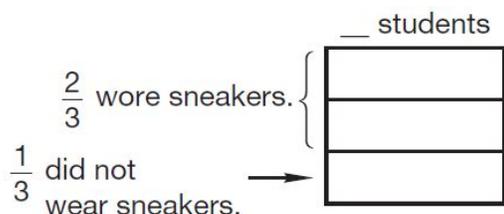
Course 2-Teacher Notes

Objective: TSW use diagrams to solve problems about a fraction of a group. TSW change a percent to a fraction to solve a problem about a percent of a group.

In lesson 13 we talked about equal groups. In lesson 14 we talked about parts of a whole. Today, we will solve problems that involve both equal groups and parts of a whole.

Two thirds of the students in the class wore sneakers on Monday.

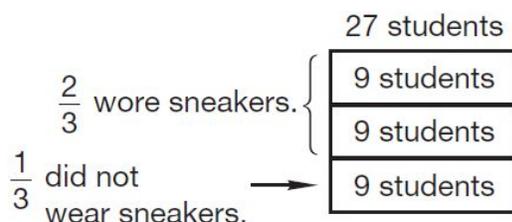
****We can draw a diagram for this statement.**



Question: What do we need to know to find out how many students are in each part?

Answer: How many total students there are.

There are 27 students in all. If we divide the group of 27 student into 3 equal parts, there will be 9 students in each part.



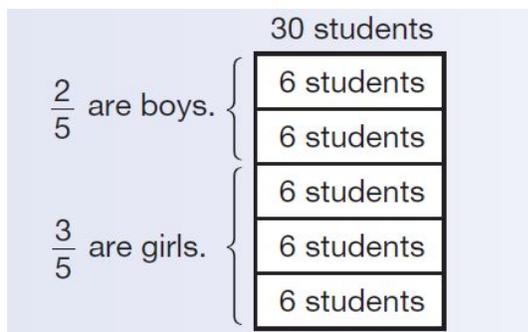
Question: Why do we divide the rectangle into 3 equal parts rather than any other number of equal parts?

Answer: The fraction we are working with is $\frac{2}{3}$.

Example 1. Diagram this statement. Then answer the question that follows.

Two fifths of the 30 students in the class are boys.

- How many boys are in the class?
- How many girls are in the class?



- There are 12 boys

b. There are 18 girls

Check: $12 + 18 = 30$ My answer is reasonable.

Example 2. In the following statement, change the percent to a fraction. Then diagram the statement and answer the questions.

Britt read 80% of a 40-page book in one day.

a. What fraction of the book did Britt read in one day?

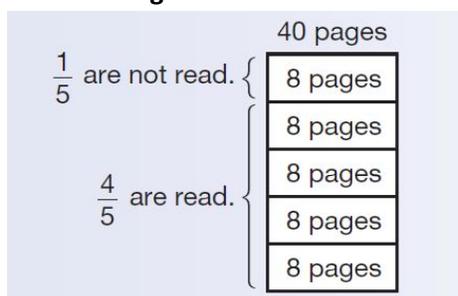
b. How many pages did Britt read in one day?

First, change % to fraction:

Convert 80% to a fraction: $\frac{80}{100}$ and reduce : $\frac{8}{10} = \frac{4}{5}$

a. Britt read $\frac{4}{5}$ of the book in 1 day.

Create a Diagram:



b. Britt read 32 pages (8×4)

Question: Can we write an equation to find the number of pages Britt did not read yet?

Answer: $40 - p = 32$; $p = 32$

CW: 5, 6, 12, 4, 11, 20, 23, 24 *****8, 9, 10, 16, 25, 27, 28, 29, 30

HW: 1-3, 7-10, 13-19, 21-22, 25-30