

Representing Equivalent Ratios:
Tape and Double Line Diagrams

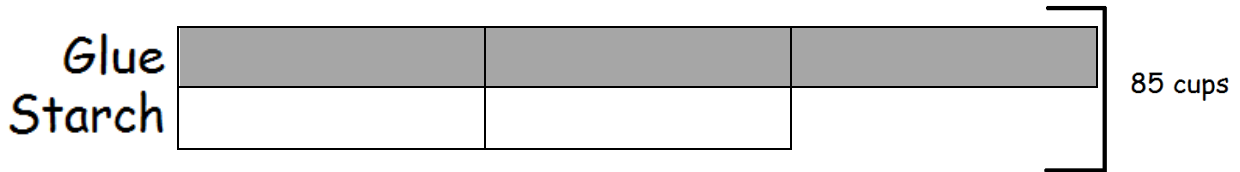
Name: _____ Orange Purple

Tape diagrams and double line diagrams used to find equivalent ratios.

- A. Tape diagrams are best used when the units of the quantities _____.
- B. Double Line Diagrams are best used when the units of the quantities are _____.

Tape Diagrams: Part to Whole

Slimy Gloopy mixture is made by mixing glue and liquid laundry starch in a ratio of 3 to 2. How much glue and how much starch is needed to make 85 cups of Slimy Gloopy mixture?



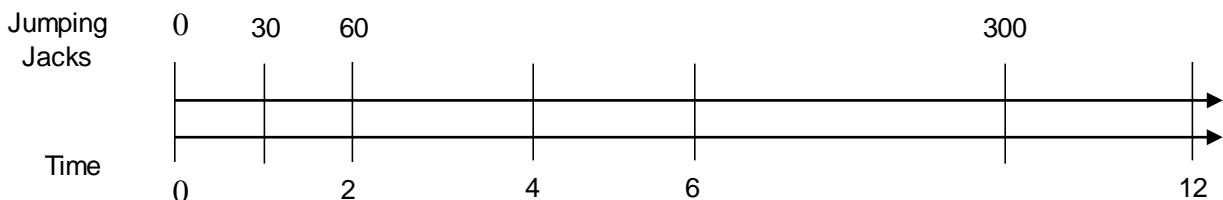
What is the total number of parts represented?	What fraction of the total does each rectangle represent?
If 85 cups of Slimy Gloopy mixture are made, how much of the total does each rectangle represent (in cups)? Write that amount in each of the boxes.	How much glue is needed? How much laundry starch is needed?

Tape Diagrams: Part to Part

The television station NBC schedules 3 minutes of commercial time for every 14 minutes of news. If there has been 154 minutes of news, how many minutes total has NBC had of commercials and news?

Double Line Graphs

Jessica can do 60 jumping jacks in 2 minutes. Complete the following double number line diagram to show equal ratios of jumping jacks to time.



1. A recipe for punch requires 2 cups water to 5 cups juice. If a total of 28 cups of punch were made: (create a tape diagram)

How many cups of juice were used? _____

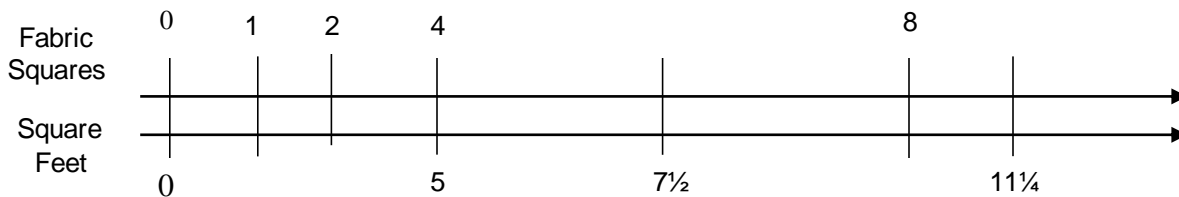
How many cups of water were used? _____

2. The ratio of boys to girls in a class is 4 to 5. If there are 12 boys: (create a tape diagram)

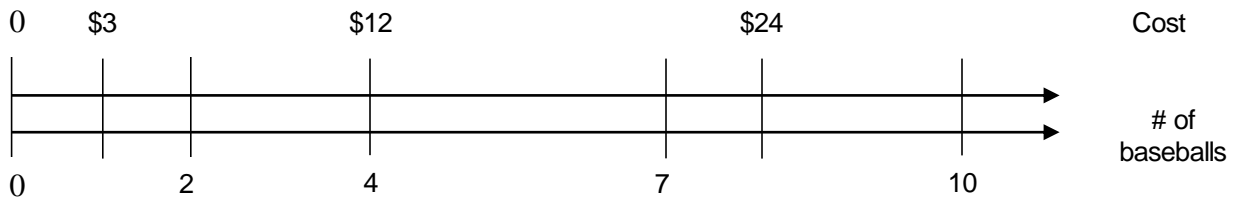
How many students are in the class? _____

How many are girls? _____

3. To make a quilt, Carey starts to cut squares of fabric (of equal size) that she'll sew together. The four squares that she cut first came from a piece of fabric that was 5 square feet. Complete the following double number line diagram to show how much fabric she uses for various amounts of fabric squares.

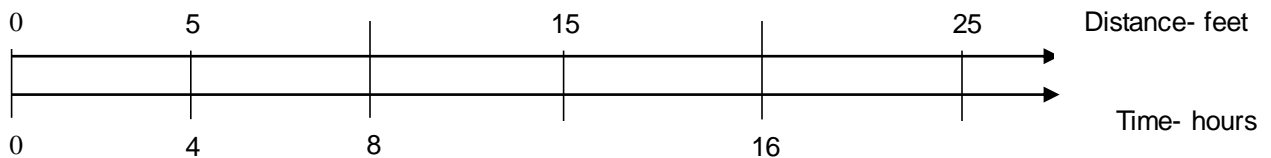


4. 4 baseballs cost \$12. Complete the following double number line diagram to show equal ratios of number of baseballs to cost.



How is unit rate shown on the double number line diagrams? What is the unit cost for baseballs?

5. Myrtle the Turtle can walk 5 feet every 4 hours. Complete the following double number line diagram to show equal ratios of her distance to time.



How far does Myrtle the Turtle walk in 1 hour?