

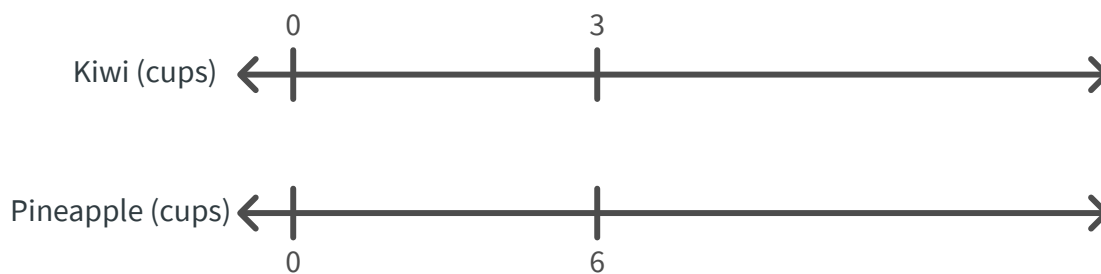
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Date: \_\_\_\_\_

GRADE 7 / MISSION 4

## Mid-Mission Assessment

1. A fruit salad recipe calls for 3 cups of kiwi for every 6 cups of pineapple as shown on the double number line below.



- a. How many cups of pineapple do you need for every 1 cup of kiwi? Use the double number line to support your answer.
- b. How many cups of pineapple would you need for 8 cups of kiwi? Use the double number line to support your answer.

2. Jin is making homemade whipped cream for dessert. The recipe calls for 3 tablespoons of sugar for every  $1\frac{1}{2}$  cups of heavy cream as shown in the table below. Complete the table to show how many tablespoons of sugar are needed for every 1 cup and 5 cups of heavy cream. Show your work.

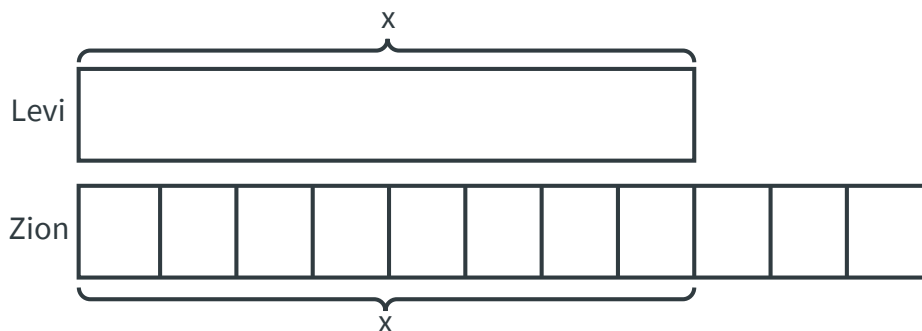
Heavy Cream (cups)	Sugar (tablespoons)
$1\frac{1}{2}$	3
1	
5	

3. Atreyu runs  $6\frac{1}{4}$  miles in  $\frac{5}{6}$  of an hour. If Atreyu continues at this rate, how far will he run in 1 hour? Complete the table. Show your work and/or explain your reasoning.

Time (hours)	Distance (miles)

4. It costs \$2.44 to buy  $\frac{4}{5}$  lb of lemons. How much would it cost to buy 8 lbs of lemons? Show your work and/or explain your reasoning.

5. Levi drank  $x$  ounces of water in a single day. Zion drank  $\frac{3}{8}$  more than Levi as shown in the tape diagram below. Write an equation to represent the amount of water Zion drank. Let  $y$  represent the number of ounces of water Zion drank.



6. Use long division to express each fraction as a decimal.

a.  $\frac{7}{20} = \underline{\hspace{2cm}}$

b.  $\frac{7}{22} = \underline{\hspace{2cm}}$

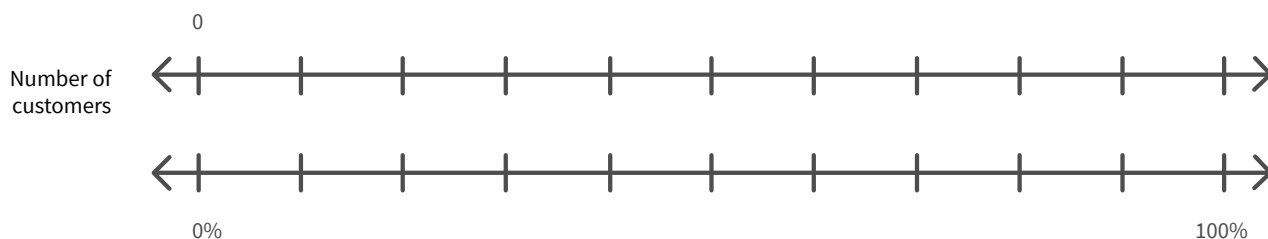
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## GRADE 7 / MISSION 4

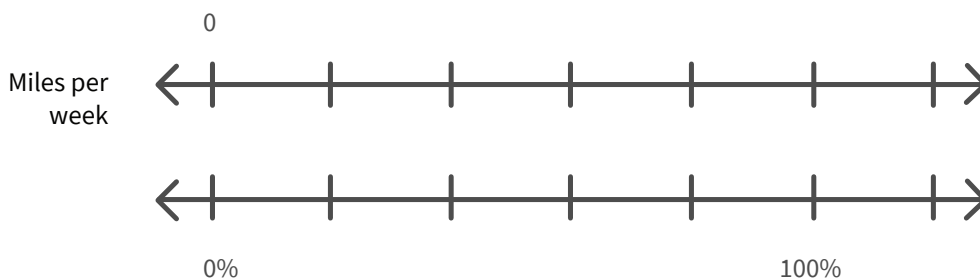
**End-of-Mission Assessment**

1. A coffee shop served 110 customers on Saturday. On Sunday, they only served 60% of that. How many customers did the coffee shop serve on Sunday? Use the double number line to support your answer.



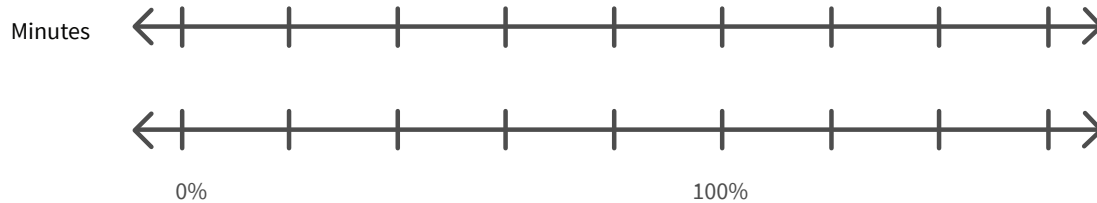
2. Eliud was running 125 miles per week. Now, he's running 20% more miles per week.

- a. Use the double number line to show Eliud's previous miles per week and his new miles per week. Use  $r$  represent Eliud's new miles per week.



- b. How many miles is Eliud running per week? Write and solve an equation to determine how many miles Eliud is now running per week,  $r$ .

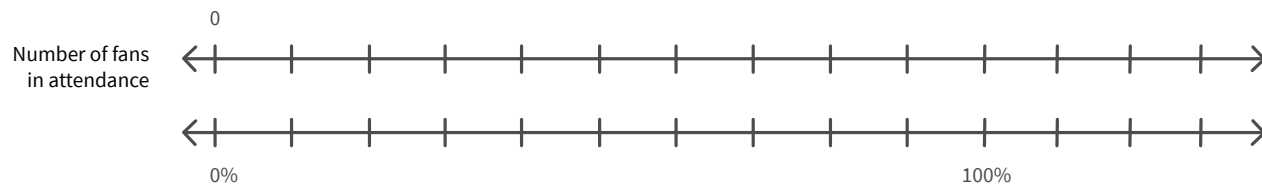
3. It took Kristoff 45 minutes to complete his math homework. It took him 60% less time to complete his science homework.
- a. Use the double number line to show how long it took Kristoff to complete his math homework and how long it took him to complete his science homework. Use  $s$  to represent the amount of time it took Kristoff to complete his science homework.



- b. How long did it take Kristoff to complete his science homework? Write and solve an equation to determine how long it took Kristoff to complete his science homework,  $s$ .

4. 3,120 fans attended the final game of the season. This was a 30% increase from the attendance at the first game of the season.

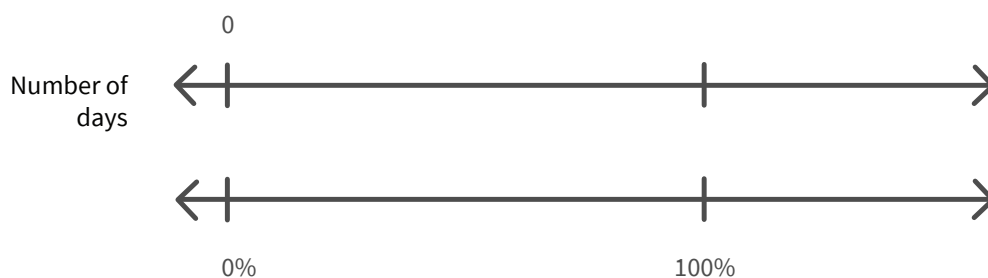
- a. Use the double number line to show the attendance at the first and last games of the season. Use  $a$  to represent the attendance at the first game of the season.



- b. How many fans attended the first game of the season? Write and solve an equation to determine the number of fans who attended the first game of the season,  $a$ .

5. Over a period of 140 days, rain was recorded on 77 of those days.

- a. Use the double number line to show the total number of days and the number of days with rain. Use  $d$  to represent the percentage of days with rain.



- b. What percentage of the days had rain? Write and solve an equation to determine the percentage of the days with rain,  $d$ .

6. Find each percentage of 9,800. Explain your reasoning.

a. What is 10% of 9,800?

b. What is 1% of 9,800?

c. What is 0.1% of 9,800?

d. What is 0.5% of 9,800?



7. In Ruston, LA in the year 2020, a meal that cost \$54 would have \$5.94 of a sales tax added to the bill.
- What is the tax rate on meals in Ruston, La? Show your work and/or explain your reasoning.
  - How much sales tax would be added to a meal that cost \$18? Show your work and/or explain your reasoning.
8. Leon builds wooden picnic tables. It costs Leon \$80 to build one table. He plans to sell the tables for \$120 per table. By what percentage is Leon marking up the price of each table? Show your work and/or explain your reasoning.

9. Kin estimated the distance from his house to his grandmother's house to be 4.5 miles. The actual distance is 4.32 miles. What is Kin's percent error? Show your work and/or explain your reasoning.