Name _____ Period _____

Unit 3 Rate and Percent Week of 1/6/20

Learning Targets from 6th Grade Common Core State Standards:

Lesson 10 What are percentages?

- ☐ I can explain the meaning of percentages using dollars and cents as an example.
- ☐ I can create a double number line with percentages on one line and dollar amounts on the other line.

Lesson 11 Percentages and Double Number Lines

- ☐ I can use double number line diagrams to solve different problems like "What is 40% of 60?" or "60 is 40% of what number?"

Lesson 12 Percentages and Tape Diagrams

- ☐ I can use tape diagrams to solve different problems like "What is 40% of 60?" or "60 is 40% of what number?"

This Week's Vocabulary Words:

percent double number line tape diagram rate unit rate

Homework is due the following day.

Day	Class work—All in Spiral using iPad ☺	Homework	Complete	Correct
Monday	No School Teacher Staff Development			
Tuesday	Lesson 10 What are percentages?	Pages 1 & 2: Lesson 10 Practice Problems—All	/4	/24
Wednesday	Lesson 11 Percentages and double number lines	Pages 3 & 4: Lesson 11 Practice Problems—All	/4	/8
Thursday	Lesson 12 Percentages and Tape Diagrams	Pages 5 & 6: Lesson 12—as assigned.	/4	/10
Friday	Lesson 12 Continues	None		
		Total	/12	
		Quality	/4	
		Total	/20	

Homework Quality—Remember, if you don't know how to complete a problem you should read it again and write down the information you have, draw a picture, or write a question you have, please do not leave blank or write "?" or idk. You can also come in and get help before school☺!

- ☐ Work is ***thorough*** with ***detailed*** explanations (2 pts)
- ☐ Homework is corrected (with additions needed) in a different color pen/pencil (2 pts)

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Unit 3, Lesson 10: What Are Percentages?

1. What percentage of a dollar is the value of each coin combination?

   a. 4 dimes

   b. 1 nickel and 3 pennies

   c. 5 quarters and 1 dime

/3

2. a. List three different combinations of coins, each with a value of 30% of a dollar.

   b. List two different combinations of coins, each with a value of 140% of a dollar.

/2

3. The United States government used to make coins of many different values. For each coin, state its worth as a percentage of $1.

   a. $\frac{1}{2}$ cent

   b. 3 cents

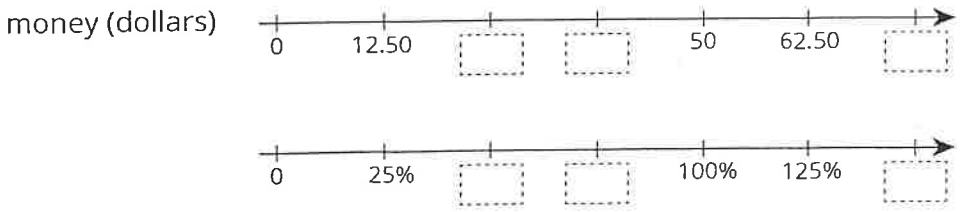
   c. 20 cents

   d. $\$2\frac{1}{2}$

   e. $5

/5

4. Complete the double number to line show percentages of $50.



/2

5. Elena bought 8 tokens for $4.40. At this rate:

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a. How many tokens could she buy with $6.05?

b. How much do 19 tokens cost?

/2

(from Unit 3, Lesson 9)

6. A snail travels 10 cm in 4 minutes. At this rate:

a. How long will it take the snail to travel 24 cm?

b. How far does the snail travel in 6 minutes?

/2

(from Unit 3, Lesson 8)

7. a. 3 tacos cost $18. Complete the table to show the cost of 4, 5, and 6 tacos at the same rate.

b. If you buy t tacos for c dollars, what is the unit rate?

number of tacos	cost in dollars	rate in dollars per taco
3	18	
4		
5		
6		
t	c	

/8

(from Unit 3, Lesson 7)

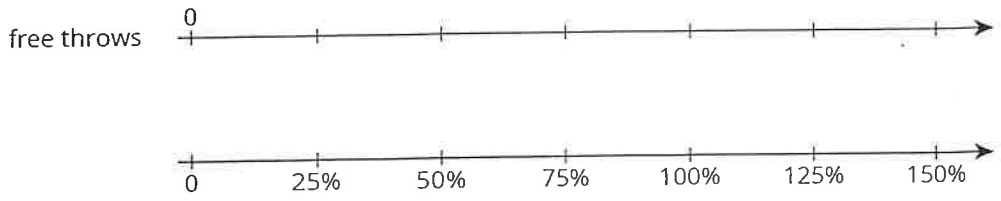
/24

NAME DATE PERIOD

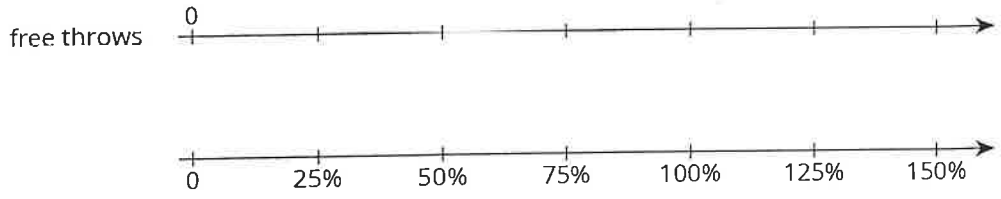
Unit 3, Lesson 11: Percentages and Double Number Lines

1. Solve each problem. If you get stuck, consider using the double number lines.

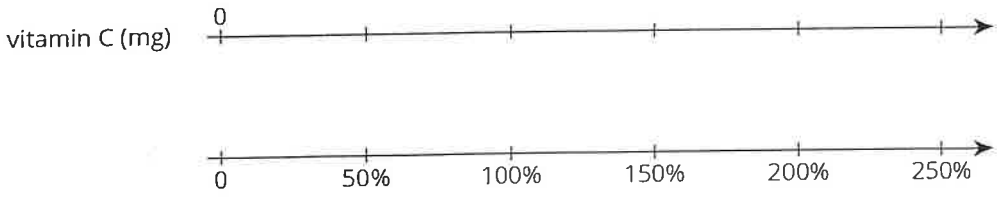
   a. During a basketball practice, Mai attempted 40 free throws and was successful on 25% of them. How many successful free throws did she make?



   b. Yesterday, Priya successfully made 12 free throws. Today, she made 150% as many. How many successful free throws did Priya make today? 12



2. A 16-ounce bottle of orange juice says it contains 200 milligrams of vitamin C, which is 250% of the daily recommended allowance of vitamin C for adults. What is 100% of the daily recommended allowance of vitamin C for adults? 1



3. At a school, 40% of the sixth-grade students said that hip-hop is their favorite kind of music. If 100 sixth-grade students prefer hip hop music, how many sixth-grade students are at the school? Explain or show your reasoning. 1

4. Diego has a skateboard, scooter, bike, and go-cart. He wants to know which vehicle is the fastest. A friend records how far Diego travels on each vehicle in 5 seconds. For each vehicle, Diego travels as fast as he can along a straight, level path. Next page

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vehicle	distance traveled
skateboard	90 feet
scooter	1,020 inches
bike	4,800 centimeters
go-cart	0.03 kilometers

a. 100 inches equal 254 centimeters. What is the distance each vehicle traveled in centimeters?

b. Rank the vehicles in order from fastest to slowest.

/2

(from Unit 3, Lesson 9)

5. It takes 10 pounds of potatoes to make 15 pounds of mashed potatoes. At this rate:

a. How many pounds of mashed potatoes can they make with 15 pounds of potatoes?

b. How many pounds of potatoes are needed to make 50 pounds of mashed potatoes?

/2

(from Unit 3, Lesson 7)

/8

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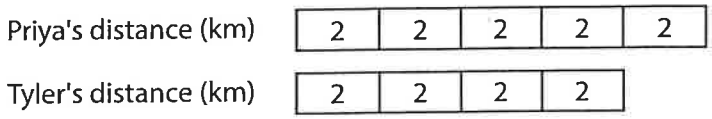
10

Unit 3, Lesson 12

Practice Problems

1. Here is a tape diagram that shows how far two students walked.



2

   a. What percentage of Priya's distance did Tyler walk?

   b. What percentage of Tyler's distance did Priya walk?

2. A bakery makes 40 different flavors of muffins. 25% of the flavors have chocolate as one of the ingredients. Draw a tape diagram to show how many flavors have chocolate and how many don't.

1

3. There are 70 students in the school band. 40% of them are sixth graders, 20% are seventh graders, and the rest are eighth graders.

3

   a. How many band members are sixth graders?

   b. How many band members are seventh graders?

   c. What percentage of the band members are eighth graders? Explain your reasoning.

4. Jada has a monthly budget for her cell phone bill. Last month she spent 120% of her budget, and the bill was $60. What is Jada's monthly budget? Explain or show your reasoning.

1

5. Which is a better deal, 5 tickets for $12.50 or 8 tickets for $20.16? Explain your reasoning.

1

5

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6. An athlete runs 8 miles in 50 minutes on a treadmill. At this rate:

   a. How long will it take the athlete to run 9 miles?

   b. How far can the athlete run in 1 hour?

1/2