6th Grade Math Assignments
April 27 - May 8

This packet we have two options for assignments- online and on paper. You only need to do ONE set of assignments. (unless you're super bored and want to do both- knock yourself out)

If you have internet access and want to work online, please **go to our Google Classrooms to see your Pearson and ALEKS assignments for this week**. There are videos and practice assignments posted there. If you are having trouble logging in to Google, Pearson, or ALEKS, please visit: **tinyurl.com/rax8h9n**

Ms. Lortie's Google code: **t4mku56**

Ms. Pham's Google code: **yzelatt**

Ms. Burnett's Google code: **no3mtnq**

Please still use the notes pages that came with this packet when you work online- *we are practicing the same skills in both places!*

If you don't have access or would prefer to work on paper, here are this week's alternate assignments:

1. Work on the Skills Survey paper to practice basic skills (substitute for ALEKS)- both sides, all 40 questions. 1 paper is for each week.
2. Read through the notes on Statistics, Ratios, and Unit Rates (review)
3. Work on the practice problems for all topics.

To turn in this work (just the worksheets, please keep the notes!), you can either

- Drop it off in the box at AMS by the breakfast/lunch pickup, on Wednesdays and Thursdays from 10:00AM-2:00PM. Please put your work back in the envelope and make sure your first and last name and your teacher's name is on it!
- Drop it off at Keeling, Holaway, or Rio Vista on Fridays from 8:00AM-12:30PM. Look for the black bin labeled AMS. Please put your work back in the envelope and make sure your first and last name and your teacher's name is on it!
- Take a picture of it and email it to your teacher, or upload it to the Google Classroom assignments.

Our websites have lots of ways to contact us if you need help. Please let us know! We miss you and hope you are doing well!

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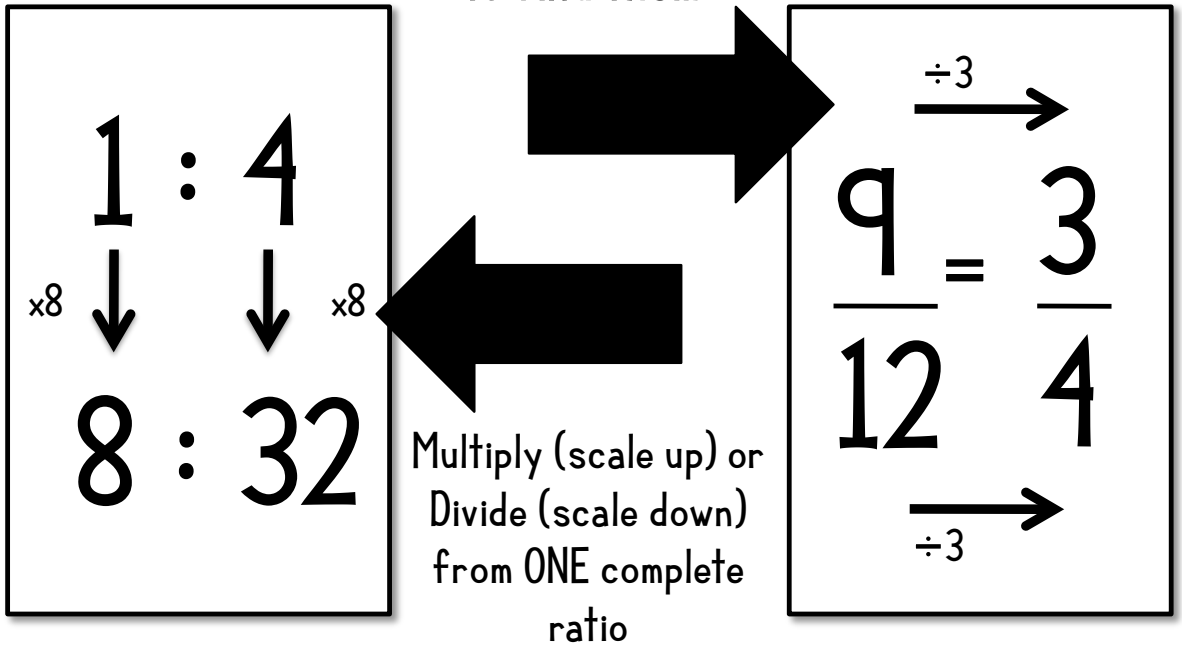
Equivalent Ratios

Two ratios are <u>equivalent</u> when they have the same multiplicative relationship. They have the same value, but are made with bigger or smaller numbers. We scale up (bigger) or scale down (smaller) to find them.



Ratio Table

Add these two ratios together –
10 + 2.5 = 12.5

Add or Subtract TWO or more complete ratios*

Ounces Water	5	10	2.5	?
Ounces Lemon	3	6	1.5	7.5

Since 6 + 1.5 = 7.5

*Ratios <u>only</u>; NEVER add or subtract fractions like this!!

Unit Rates

A **rate** is a ratio comparing quantities measured with different units. We usually read them with "per" instead of "to" in the middle.

Some common rates are: $\frac{\text{dollars}}{\text{pound}}$ $\frac{\text{miles}}{\text{hour}}$ $\frac{\text{minutes}}{\text{day}}$

When we scale one of the units of the rate down to 1, we call that a UNIT RATE. To find 1 from any number, we divide by itself.

Time, weight, or usually the number on the bottom is what we want to scale down to 1.

$$\frac{75 \text{ miles}}{3 \text{ hours}} \xrightarrow{\div 3} \frac{25 \text{ miles}}{1 \text{ hour}}$$

This is a unit rate! One of the quantities is scaled down to 1.

We need to divide 3 by itself to get down to 1.

Use a unit rate to find any other number!

$$\frac{75 \text{ miles}}{3 \text{ hours}} = \frac{? \text{ miles}}{7 \text{ hours}}$$

$$\frac{75 \text{ miles}}{3 \text{ hours}} = \frac{25 \text{ miles}}{1 \text{ hour}} = \frac{175 \text{ miles}}{7 \text{ hour}}$$

$\div 3$ from 3 hours to 1 hour; $\times 7$ from 1 hour to 7 hour

I don't know how to scale up from 3 to 7, so I will scale down and find the unit rate, then scale up.

Ratio Review Practice

Directions: Fill in the blank boxes in the ratio tables to make equivalent ratios

1.

4		28
5	15	

2.

15	60	
4		2

3.

9		6
	1	2

4.

52	14	
	5	25

5.

150	50	
120		12

6.

2.5	1	
5		6

Directions: Determine if the ratios are equivalent- **write yes or no**

7. 8 : 7 and 48 : 42 _____

8. 9 : 10 and 2 : 3 _____

9. 7 : 11 and 14 : 22 _____

10. 5 : 11 and 25 : 66 _____

11. 8 : 4 and 24 : 48 _____

12. 2 : 5 and 10 : 12 _____

Unit Rate Review Practice

Directions: Write the unit rate for each situation

Example: $15.00 for 3 movies = $5.00 for **1** movie

1. $12.00 for 6 pencils = _____
2. 10 inches of snow in 8 hours = _____
3. $5.00 for 4 cans of tuna = _____
4. 90 miles in 5 hours = _____
5. 120 minutes of math in 3 days = _____
6. 240 miles on 6 gallons of gas = _____

Directions: Solve each problem

1. An ice cream factory makes 290 quarts in 10 hours. How many quarts could they make in 12 hours? How many could they make in an entire day?

2. Ms. Lortie wants to go on the new Star Wars ride at Disneyland. She is in group 82. Group 1 started at 8:00AM. By 10:00 they were on Group 28. At about what time will Ms. Lortie get on the ride?*

*True story

Notes and Definitions for Mean, Median, Mode, Range

- The **Mode** of a set of data is the number that appears the most often. You might hear the phrase used, "What is the **modal** score of the data?" This means, "What score/number was the most common?"
- The mode is useful if you're trying to figure out something like favorites. For example, if you were trying to find out the class's favorite color by asking everyone to list their favorite color, you'd have to go with the answer that the **most** people said. That's the mode.
- The **Median** of a set of data is the number that is in the middle of a set of data. For example, in this list: 5,2,1,3,4, three is the median, because it's in the middle of the data once you put it into order from smallest to largest. [If we had an even amount of numbers, we'd have to average the two in the middle by adding them together then dividing by 2.]
- The median is useful to measure the center of a set of data. It is best to use the median if you have some **outliers.** An outlier is a piece of data that is very far away from the rest of the numbers in your data.
- The **Mean** of a set of data is the average of all the data. To find the mean you add up all the numbers together, then divide by how many pieces of data you had. For example, in this set of data: 5, 2, 1, 3, 4, when you add them all together you get: $5 + 2 + 1 + 3 + 4 = 15$. Since there are 5 pieces of data, you do $15 \div 5 = 3$. The mean is 3!
- Mean is useful to measure the center of a set of data. Mean is best to use if you **do not have any outliers**. Another phrase used for mean is the "fair share." For example if three kids wanted to share their Skittles equally and one kid had 4 Skittles, another had 5 Skittles, and the last one had 9 skittles, they could put all of their Skittles together ($4+5+9 = 18$), then split them equally between the three of them ($18 \div 3 = 6$). Each kid's fair share (or mean) would be 6 Skittles.
- Although the mean and median both measure the center of a list of numbers, the median is often time more accurate for all data than the mean is.
- Finally, we have the **Range.** The range tells the difference between the smallest number and the largest number in a set of data. For example, in this set of data:
- 5, 2, 1, 3, 4, the range is 5-1 OR 4.
- Range can be useful because it gives you an idea of how an entire set of data looks, not just the middle. For example, if I told you that the average video game at Games Galore costs $50, you might think that you can't afford a game. But if I told you that games at Games Galore range from $10 to $70, now you feel like there might be some games there you can afford to buy. Another phrase used for range is the **"variation."**

Name: _____ Date: _____ Teacher: _____

Mean, Median, Mode, and Variation Practice

Directions: Use the table below to answer the questions.

Math Test Grades

Swann's Class	Grade	Johnson's Class	Grade	Taylor's Class	Grade
Timmy	100	Mikey	55	Andre	75
Jimmy	66	Raph	88	Johnnie	78
Sammy	100	Don	92	Terrance	81
Molly	61	Leo	100	Liz	100
Bobby	93	Mickey	98	Amanda	88
Joey	63	Minnie	98	Jay	83
Harry	93	Goofy	100	Lewis	86
Sally	65	Daffy	89	Cassondra	100
Sandy	97	Bugs	90	Rachel	92

1. According to the **median**, which class did the best on the test?

   _____

2. If we use the **mean** (or average), which class performed the best on the test?

   _____

3. Which class had the greatest variation in scores? (find the **range**)

   _____

4. If we combined all 3 classes together, what would the **mode** of the data be?

   _____

Name: _____ Date: _____ Teacher: _____

Range, Median, Mode and Mean

Solve each problem:

1. Ms. Burnett bought six books at the store. The price of each book is listed below. Find the mean, median, mode, and range for this set of data.

   $8.00, $12.00, $16.00, $10.00, $5.00, $21.00

   Mean: _____ Median: _____ Mode: _____ Range: _____

2. Mr. Reis bought the following items for his classes. Find the range, mode, median, and mean for the set of data.

   pencils: $22.50, rulers: $14.25, tissues: $16.75, markers: $30.50

   Mean: _____ Median: _____ Mode: _____ Range: _____

3. Here are two students' test scores for the quarter:

   Laura - 88, 79, 83, 89, 98, 96, 91, 84, 87

   Ashley - 77, 63, 100, 99, 98, 84, 86, 87, 95

   According to their ***median*** test score, which student did better on their tests? _____

   Which student had the least ***variation*** (find the **range**) in their test scores? _____

4. We asked 5th graders what their favorite ice cream flavor was. The responses are below.

Chocolate	Mint	Strawberry	Chocolate	Vanilla
Cookie Dough	Mint	Chocolate	Vanilla	Rocky Road
Chocolate	Carmel	Vanilla	Mint	Vanilla
Cookie Dough	Vanilla	Chocolate	Rocky Road	Strawberry

What is the *modal* flavor? (What is the mode of the data?) _____

Name: _____ Teacher:_____ Date: _____ Score: _____

1 $121 \div 11$	2 Round to nearest tenth: 4.989	3 $40 - 31.85$	4 $5 \div 100$
5 Find the LCM: $12, 4$	6 $\frac{1}{2} \cdot \frac{2}{3}$	7 $\frac{1}{4} + \frac{5}{4}$	8 $8 - 3 \cdot 2 + 7$
9 $56 \div 4$	10 Round to nearest whole: 52.78	11 $12.2 + 6.85$	12 $12 \cdot 1000$
13 Find the GCF: $6, 18$	14 $\frac{1}{5} \cdot 15$	15 $\frac{5}{6} - \frac{2}{3}$	16 $(6 \div 3) \cdot (4 \cdot 5)$
17 $8.82 \div 9$	18 Round to the nearest hundredth: 3.8214	19 $1.13 + 2.25$	20 $.5 \cdot 1000$

Name: _____ Teacher:_____ Date: _____ Score: _____

21 Find the LCM: $9, 6$	22 $\frac{1}{2} \div 4$	23 $\frac{8}{4} - \frac{4}{4}$	24 $3 \bullet 7 - 8$
25 $5 \bullet 13$	26 Round to nearest hundred: 75.64	27 $23.97 - 12.7$	28 $58 \div 1000$
29 Find the GCF: $27, 36$	30 $8 \div \frac{1}{4}$	31 $\frac{8}{12} - \frac{2}{3}$	32 $(7 + 8) + (2 \bullet 4)$
33 $12 \bullet 30$	34 Round to nearest tenth: 56.34	35 $6.7 - 4.05$	36 $5.2 \bullet 100$
37 Find the LCM: $5, 6$	38 $\frac{3}{4} \bullet \frac{8}{15}$	39 $\frac{5}{7} + \frac{2}{7}$	40 $12 \div 3 - 4 + 8$

Name: _____ Teacher:_____ Date: _____ Score: _____

1 $93 \div 31$	2 Round to nearest hundreds: 6421	3 $45.6 + 4.40$	4 $9281 \div 100$
5 Find the GCF: $9, 15$	6 $\frac{3}{4} \cdot \frac{1}{3}$	7 $\frac{1}{6} + \frac{1}{2}$	8 $5 + 4 - 2 \cdot 2$
9 $57 \div 3$	10 Round to nearest tens: 786.2	11 $18.3 - 8.8$	12 $23.22 \cdot 100$
13 Find the LCM: $2, 3$	14 $\frac{1}{2} \div 5$	15 $\frac{7}{6} - \frac{7}{6}$	16 $(3 \cdot 5) - (1 \cdot 10)$
17 $7.24 \div 4$	18 Round to the nearest whole number: 995.31	19 $6.37 + 0.82$	20 $9452.31 \div 10$

Name: _____ Teacher:_____ Date: _____ Score: _____

21 Find the GCF: $12, 16$	22 $\frac{7}{8} \cdot \frac{4}{3}$	23 $\frac{5}{13} + \frac{6}{13}$	24 $5 \cdot 4 \div 2$
25 $14 \cdot 5$	26 Round to nearest tenths: 32.454	27 $9.1 - 2.6$	28 $59.8 \cdot 10$
29 Find the LCM: $4, 8$	30 $6 \div \frac{1}{4}$	31 $\frac{1}{3} - \frac{1}{4}$	32 $3 + 6 \cdot 2$
33 $11 \cdot 19$	34 Round to nearest hundredths: 0.6592	35 $3.5 + 5.8$	36 $5964 \div 10$
37 Find the GCF: $24, 8$	38 $3 \cdot \frac{5}{8}$	39 $\frac{3}{5} + \frac{4}{5}$	40 $1 \cdot 5 + 4$