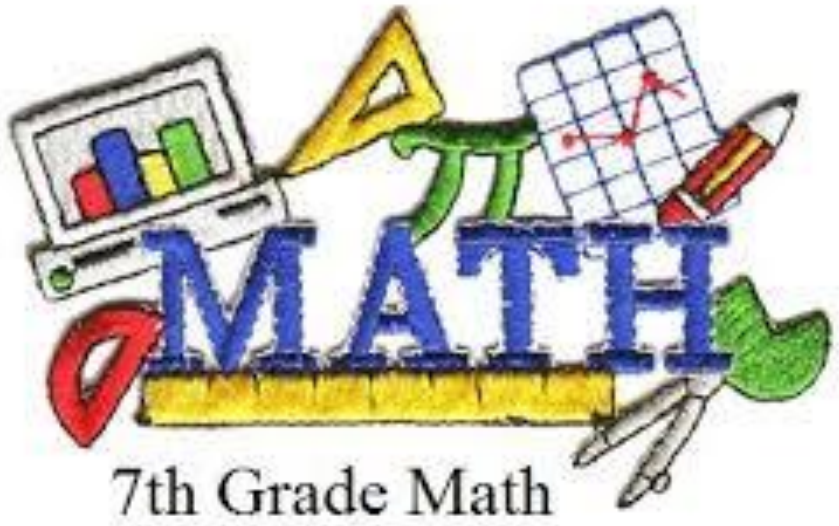

SLPS Continuous Learning
Grade 7 Math
Apr 27 – May 8

Students are encouraged to maintain contact with their home school and classroom teacher(s). If you have not already done so, please visit your child's school website to access individual teacher web pages for specific learning/assignment information. If you cannot reach your teacher and have elected to use these resources, please be mindful that some learning activities may require students to reply online, while others may require students to respond using paper and pencil. In the event online access is not available, please record responses on paper. Completed work should be dropped off at your child's school. Please contact your child's school for the dates and times to drop off your child's work.

If you need additional resources to support virtual learning, please visit: https://www.slps.org/extendedresources

Grade 7 Math Learning Plan		
Date	**Topic/Standard**	**Instructional Video and Activity**
Apr 27, 2020	Solving Inequalities Using Addition and Subtraction I can write and/or solve linear equations and inequalities in one variable.	Watch the following video https://youtu.be/UTs4uZhu5t8 Students solve questions and answer the puzzle • Grade 7 Math Puzzle 1
Apr 28, 2020	Solving Inequalities Using Multiplication and Division I can write and/or solve linear equations and inequalities in one variable.	Watch the following videos https://youtu.be/D1cKk48kz-E Students solve questions and answer the puzzle • Grade 7 Math Puzzle 2
Apr 29, 2020	Solving Two-Step Inequalities I can write and/or solve linear equations and inequalities in one variable.	Watch the following video https://youtu.be/y7QLay8wrW8 Students solve questions and answer the puzzle • Grade 7 Math Puzzle 3
Apr 30, 2020	Ratio and Rates I can compute unit rates, including those that involve complex fractions, with like or different units.	Watch the following video https://youtu.be/UK-_qEDtvYo https://youtu.be/Zm0KaIw-35k Students solve questions and answer the puzzle • Grade 7 Math Puzzle 4
May 1, 2020	Proportions I can recognize and represent proportional relationships between quantities	Watch the following video https://youtu.be/qYjiVWwefto Students solve questions and answer the puzzle • Grade 7 Math Puzzle 5

Grade 7 Math Learning Plan		
Date	**Topic/Standard**	**Instructional Video and Activity**
May 4, 2020	Writing Proportions I can recognize and represent proportional relationships between quantities	Watch the following video https://youtu.be/96ZEmUbnuU8 Students solve questions and answer the puzzle • Grade 7 Math Puzzle 1
May 5, 2020	Solving Proportions I can recognize and represent proportional relationships between quantities	Watch the following videos https://youtu.be/GO5ajwbFqVQ Students solve questions and answer the puzzle • Grade 7 Math Puzzle 2
May 6, 2020	Slope I can recognize and represent proportional relationships between quantities	Watch the following video https://youtu.be/R948Tsyq4vA Students solve questions and answer the puzzle • Grade 7 Math Puzzle 3
May 7, 2020	Direct Variation I can recognize and represent proportional relationships between quantities	Watch the following video https://youtu.be/92U67CUy9Gc Students solve questions and answer the puzzle • Grade 7 Math Puzzle 4
May 8, 2020	Percents and Decimals I can solve multi-step problems posed with rational numbers	Watch the following video https://youtu.be/5z568fLBQyQ https://youtu.be/MkpbtCRwcCE Students solve questions and answer the puzzle • Grade 7 Math Puzzle 5

Name _____ Date _____

4.2 Puzzle Time

Did You Hear About The...

A	**B**	**C**	**D**	**E**	**F**
G	**H**	**I**	**J**	**K**	**L**
M	**N**				

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

Solve the inequality.

A. $x + 5 \geq 20$

B. $x - 4 > 6$

C. $6 \leq 9 + x$

D. $3 + x \leq -2$

E. $-17 \leq x - 8$

F. $x - 1 < 2$

G. $x - 10 \leq -16$

H. $x + \frac{1}{3} \geq 3$

I. $\frac{3}{5} \geq x + \frac{1}{5}$

J. $-4.4 < x - 7.2$

K. $\frac{11}{4} > x + \frac{9}{4}$

L. $-\frac{5}{12} \geq x - \frac{13}{12}$

M. $x + 0.4 < -0.8$

O. To play on the football team, a seventh grader must weigh no more than 110 pounds. Your neighbor is in seventh grade and weighs 94 pounds. Write and solve an inequality that represents how much weight your neighbor can gain and still meet the requirement.

$x \geq -3$ **GAME**	$x \geq 2\frac{2}{3}$ **THE**
$x \leq \frac{2}{3}$ **IN**	$x > 10$ **BASEBALL**
$x \leq -6$ **AND**	$x < \frac{1}{2}$ **ENDED**
$x \leq 16$ **TIE**	$x \geq 1.1$ **WHICH**
$x \geq 15$ **THE**	$x > 1$ **MITT**
$x < -5$ **CATCHER**	$x \geq -9$ **THE**
$x < 3$ **COLLARS**	$x \leq 2$ **SOCKS**
$x > 2.8$ **THAT**	$x < -1.2$ **A**
$x \leq \frac{2}{5}$ **SHIRTS**	$x \leq -5$ **BETWEEN**

Name _____ Date _____

4.3 Puzzle Time

What Do You Do When Your Smoke Alarm Goes Off?

Write the letter of each answer in the box containing the exercise number.

Solve the inequality.

1. $4x < 24$

2. $\frac{x}{6} \geq -3$

3. $-2.3x > 23$

4. $-15 \geq \frac{x}{3}$

5. $\frac{x}{4} > -4.1$

6. $9 \leq -1.5x$

7. $-6x > -\frac{1}{4}$

8. $4.2x \geq -12.6$

9. Three times a number x is at least -18.

10. The quotient of -7 and a number x is less than 8.

Answers

N. $x < -10$

U. $x \leq -6$

R. $x < \frac{1}{24}$

A. $x > -16.4$

I. $x \geq -6$

T. $x < 6$

F. $x \geq -3$

E. $x > -56$

T. $x \leq -45$

R. $x \geq -18$

7	6	3		5	8	1	10	2		9	4

Name _____ Date _____

4.4 Puzzle Time

What Did Ernie Say When Bert Asked Him If He Wanted Ice Cream?

Write the letter of each answer in the box containing the exercise number.

Solve the inequality.

1. $8x - 11 < 13$

2. $3x - 5 \geq 16$

3. $2 - \frac{x}{4} \geq 4$

4. $\frac{6}{7} > -2x - \frac{8}{7}$

5. $4.6 > 1.2 + 1.7x$

6. $8(x - 4) \geq 40$

7. $-30 \leq -\frac{3}{4}(x + 4)$

8. $-6.8 \geq 0.8(x + 1)$

Answers

R. $x < 2$

T. $x \leq 36$

E. $x \geq 7$

S. $x \leq -9.5$

B. $x > -1$

U. $x < 3$

R. $x \leq -8$

E. $x \geq 9$

8	1	3	6		4	2	5	7

Name _____ Date _____

5.1 Puzzle Time

What Do You Get If You Cross A Duck With A Firework?

Write the letter of each answer in the box containing the exercise number.

Find the product.

1. $4 \text{ tbsp} \times \frac{20 \text{ cal}}{\text{tbsp}}$

P. 5 cal **Q.** 80 cal **R.** 5 tbsp

2. $3 \text{ lb} \times \frac{\$1.29}{\text{lb}}$

E. \$0.43 **F.** \$3.87 **G.** 3.87 lb

3. $4 \text{ gal} \times \frac{17.5 \text{ mi}}{\text{gal}}$

C. 70 mi **D.** 35 mi **E.** 70 gal

4. $40 \text{ h} \times \frac{\$8.50}{\text{h}}$

T. 340 h **U.** \$340 **V.** \$300

Write the ratio as a fraction.

5. 12 to 36

I. $\frac{1}{6}$ **J.** $\frac{1}{4}$ **K.** $\frac{1}{3}$

6. 15 : 75

E. $\frac{1}{5}$ **F.** $\frac{1}{4}$ **G.** $\frac{1}{3}$

7. 10 out of 25

E. $\frac{2}{5}$ **F.** $\frac{1}{5}$ **G.** $\frac{1}{25}$

8. 52 males to 28 females

P. $\frac{27}{14}$ **Q.** $\frac{7}{13}$ **R.** $\frac{13}{7}$

Find the unit rate.

9. 48 cups in 12 quarts

R. $\frac{4 \text{ c}}{\text{qt}}$ **S.** $\frac{3 \text{ c}}{\text{qt}}$ **T.** $\frac{2 \text{ c}}{\text{qt}}$

10. \$17.85 for 3 pounds

A. $\frac{\$5.95}{\text{lb}}$ **B.** $\frac{\$5.56}{\text{lb}}$ **C.** $\frac{\$3.65}{\text{lb}}$

11. 26.2 miles in 4 hours

A. $\frac{6.55 \text{ mi}}{\text{h}}$ **B.** $\frac{7.5 \text{ mi}}{\text{h}}$ **C.** $\frac{6.5 \text{ mi}}{\text{h}}$

12. \$12.60 for 3 boxes

G. $\frac{\$3.15}{\text{box}}$ **H.** $\frac{\$4.15}{\text{box}}$ **I.** $\frac{\$4.20}{\text{box}}$

10		2	12	8	6	-	1	4	11	3	5	7	9

Name _____ Date _____

5.2 Puzzle Time

What Can You Hold Without Ever Touching?

For each exercise, circle the letter in the columns under Yes or No to indicate the correct answer. The circled letters will spell the answer to the riddle.

	Yes	No
1.	Y	T
2.	A	O
3.	U	H
4.	R	S
5.	C	B
6.	O	R
7.	E	O
8.	A	L
9.	T	M
10.	S	H

Tell whether the ratios form a proportion.

1. $\frac{2}{5}, \frac{8}{20}$
2. $\frac{3}{7}, \frac{6}{13}$
3. $\frac{5}{6}, \frac{15}{18}$
4. $\frac{18}{24}, \frac{12}{16}$

Tell whether the two rates form a proportion.

5. 55 miles in 1 hour; 450 miles in 8 hours
6. $3.00 for 32 ounces of strawberries; $1.75 for 24 ounces of strawberries
7. 45 baskets in 85 shots; 54 baskets in 102 shots
8. 18 push-ups in 60 seconds; 27 push-ups in 90 seconds
9. One type of cereal has 2 grams of protein per 1-cup serving. Another cereal has 1 gram of protein per half-cup serving. Do these rates form a proportion?
10. A 50-fluid ounce bottle of laundry detergent washes 32 loads of laundry. A 100-fluid ounce bottle washes 60 loads of laundry. Are they proportional? Do these rates form a proportion?

Name _____ Date _____

5.3 Puzzle Time

Who Do Whales Go To See When Their Teeth Need To Be Fixed?

Write the letter of each answer in the box containing the exercise number.

Solve the proportion.

1. $\frac{3}{5} = \frac{h}{20}$

2. $\frac{4}{7} = \frac{24}{a}$

3. $\frac{1}{x} = \frac{5}{45}$

4. $\frac{2}{13} = \frac{m}{39}$

5. $\frac{t}{28} = \frac{3}{4}$

6. $\frac{18}{21} = \frac{6}{w}$

7. $\frac{3.4}{4.2} = \frac{r}{21}$

8. $\frac{1.5}{2.5} = \frac{6}{s}$

9. $\frac{q}{1.7} = \frac{16}{17}$

10. $\frac{2.2}{n} = \frac{44}{66}$

Answers

I. 27	**T.** 10
O. 12	**H.** 9
T. 1.6	**N.** 17
D. 4	**C.** 20
E. 7	**T.** 3.3
A. 42	**R.** 21
S. 6	**O.** 15

11. You need 3 tickets for one go-kart ride. How many tickets do you need for five go-kart rides?

12. Yesterday you downloaded 3 songs for $2.97. How many songs did you download today for $3.96?

13. There are 32 students in the school play. The ratio of girls to all students in the play is 5 : 8. How many girls are in the play?

14. Two out of three vehicles in a parking lot are SUVs. There are 18 SUVs in the parking lot. How many vehicles are in the parking lot?

9	3	6		11	5	13	2	-	12	1	7	10	14	4	8

Name _____ Date _____

5.4 Puzzle Time

Did You Hear About...

A	**B**	**C**	**D**	**E**	**F**
G	**H**	**I**	**J**	**K**	**L**
M	**N**	**O**	**P**	**Q**	**R**

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

Use multiplication to solve the proportion.

A. $\frac{m}{8} = \frac{3}{4}$

B. $\frac{7}{9} = \frac{y}{18}$

C. $\frac{6}{13} = \frac{r}{39}$

D. $\frac{g}{48} = \frac{11}{12}$

E. $\frac{z}{24} = \frac{25}{32}$

F. $\frac{b}{21} = \frac{5}{7}$

G. $\frac{11}{27} = \frac{n}{18}$

H. $\frac{9}{28} = \frac{s}{42}$

Use the Cross Products Property to solve the proportion.

I. $\frac{c}{12} = \frac{5}{3}$

J. $\frac{9}{4} = \frac{x}{16}$

K. $\frac{7}{8} = \frac{14}{p}$

L. $\frac{12}{7} = \frac{36}{n}$

M. $\frac{k}{20} = \frac{13}{50}$

N. $\frac{15}{a} = \frac{25}{14}$

O. $\frac{6.6}{1.2} = \frac{w}{4.2}$

P. $\frac{1.6}{3.2} = \frac{2.8}{t}$

Q. $\frac{5}{\$13.75} = \frac{p}{\$24.75}$

R. $\frac{230 \text{ cal}}{30 \text{ min}} = \frac{345 \text{ cal}}{x \text{ min}}$

44 THE	**36** EVERY
20 BECAUSE	**14** CLOCK
18 IN	**5.6** BACK
16 DAY	**15** THAT
3.8 MINUTES	**6** THE
45 SECONDS	**21** AT
9 FOR	**23.1** WENT
5.2 LUNCH	**8.4** IT
$12\frac{3}{4}$ TIME	$13\frac{1}{2}$ SLOW
$18\frac{3}{4}$ CAFETERIA	$7\frac{1}{3}$ WAS

Name _____ Date _____

5.5 Puzzle Time

What Is The Invisible Man's Favorite Drink?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

Graph the line that passes through the two points. Then find the slope of the line.

1. $(0, 0), (6, 7)$

2. $(0, 0), (-3, -5)$

3. $(1, 2), (4, 8)$

4. $(2, 2), (5, 5)$

5. $(-4, -12), (2, 6)$

6. $(-9, -2), (18, 4)$

7. $(-6, -2), (6, 2)$

8. $(-2, -8), (5, 20)$

9. $(10, 12), (20, 24)$

10. $(-12, -8), (12, 8)$

11. $(-12, -2), (6, 1)$

12. $(8, 1), (24, 3)$

In Exercises 13 and 14, use the table below for the price of admission to a water park.

Water Park Admission				
Number of Persons	2	4	6	8
Child	\$46	\$92	\$138	\$184
Adult	\$62	\$124	\$186	\$248

13. Find the slope of the line for the price of a child's admission to the water park.

14. Find the slope of the line for the price of an adult's admission to the water park.

C	A	E	R	V	L	A	T	D	P	G	I	O	N	E	R
8	$\frac{1}{2}$	3	$\frac{2}{5}$	$\frac{1}{6}$	$\frac{3}{4}$	$\frac{1}{8}$	5	$\frac{1}{4}$	$\frac{2}{9}$	$\frac{6}{7}$	$\frac{5}{4}$	1	7	$\frac{1}{12}$	2
A	**M**	**K**	**T**	**L**	**E**	**D**	**I**	**M**	**A**	**R**	**I**	**T**	**L**	**K**	**S**
23	$\frac{7}{8}$	6	$\frac{7}{6}$	$\frac{3}{5}$	$\frac{1}{3}$	$\frac{2}{3}$	12	4	9	25	$\frac{5}{3}$	90	31	$\frac{6}{5}$	0

Name _____ Date _____

5.6 Puzzle Time

How Do Bees Get To School?

For each exercise, circle the letter in the columns under Yes or No to indicate the correct answer. The circled letters will spell the answer to the riddle.

	Yes	No
1.	**T**	**S**
2.	**H**	**T**
3.	**A**	**E**
4.	**Y**	**R**
5.	**M**	**T**
6.	**E**	**A**
7.	**L**	**K**
8.	**E**	**R**
9.	**T**	**S**
10.	**O**	**H**
11.	**E**	**K**
12.	**A**	**B**
13.	**U**	**N**
14.	**Z**	**T**
15.	**Y**	**Z**

Tell whether *x* and *y* show direct variation.

1. $(1, 1), (2, 2), (3, 3), (4, 4)$

2. $(1, 3), (2, 6), (3, 9), (4, 12)$

3. $(-2, 3), (0, 0), (2, 3), (4, 12)$

4. $(-4, -1), (4, 1), (8, 2), (12, 3)$

5. $(-1, -1), (0, 1), (1, 3), (2, 5)$

6. $(1, 1), (2, 4), (3, 9), (4, 16)$

7. $(1, 3), (2, 3), (3, 3), (4, 3)$

8. $y = 12x$

9. $y = \frac{1}{7}x$

10. $y = 4x^2$

11. $y = -2x$

12. $y = 7x - 3$

13. $x = 5y$

14. $6 = \frac{x}{y}$

15. $x^3 = 12y$

Name _____ Date _____

6.1 Puzzle Time

Why Are Math Assignments Like The Water That Is Found On The Ground In The Early Morning?

Write the letter of each answer in the box containing the exercise number.

Write the percent as a decimal.

1. 67%

2. 44%

3. 29.6%

4. 46.3%

5. 22%

6. 8%

7. 58.74%

8. 80.14%

9. 277%

10. 106%

11. 0.05%

12. 0.045%

Write the decimal as a percent.

13. 0.85

14. 0.41

15. 0.98

16. 0.657

17. 0.77

18. 0.51

19. 0.376

20. 0.239

21. 2.57

22. 0.0482

Answers for Exercises 1–12

T. 2.77

E. 0.00045

S. 0.296

O. 0.22

B. 0.67

H. 1.06

R. 0.8014

P. 0.5874

O. 0.463

D. 0.44

E. 0.0005

U. 0.08

Answers for Exercises 13–22

B. 37.6%

P. 65.7%

S. 4.82%

A. 23.9%

T. 85%

E. 98%

U. 257%

D. 51%

O. 77%

E. 41%

19	17	9	10		20	8	12		3	6	7	16	5	22	15	2		13	4		1	11		18	21	14