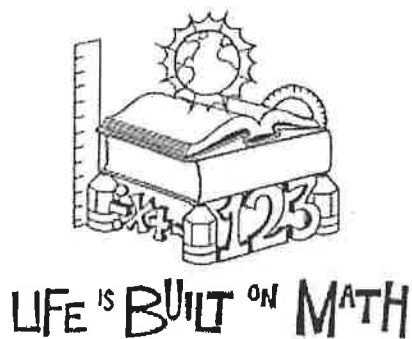


St. Luke's Middle School Summer Math 2018



To: Students entering seventh grade and their parents

From: Mrs. Finan and Mrs. Noury

1. Over the summer, it is common for students entering the seventh grade to forget some of the mathematics they learned. So, we want to help you review over the summer; this will make the beginning of seventh grade mathematics much easier. We suggest that this work be spread out during the summer.

You should not use calculators in doing this work. You must show steps on any problem that cannot reasonably be done mentally. Try all of the problems but if you struggle with a concept, then just do your best. Teachers will be able to look at your work in the fall to identify what topics you may still need help with and what review topics to focus on.

This packet will be collected at the start of school, and be counted as two homework assignments. This material will be reviewed during the first week of school and students will take a short quiz on this material to begin the second week of school; the quiz will consist of exact problems from this packet.

2. There are many options for summer math skills review workbooks that can be purchased by families. Here is an excellent one. This workbook is intended to be used only 3 days per week for ten weeks.

http://www.summerskills.com/summerskillsbooks/math_books

3. In addition to the math packet, below are some ideas of activities you can do every day with your child. Also included in this letter is a list of games and websites that you can use with your child to assist in the development of good math skills, such as spatial recognition, sequencing, patterns, logical deduction, visual memory and number facts. These games can help strengthen a mathematical foundation that is further developed within the math classroom. Most of the items on the list are commercial games. They

are motivational and, with parent involvement, these games are an excellent way to get your child to communicate concepts while sharpening thinking skills. They also provide an opportunity for discussion and questions, encouraging your child to evaluate answers, draw conclusions and strengthen reasoning skills. Games are a low stress way to engage your child in math while developing necessary skills. We hope you will find time to use some of these suggestions and that you enjoy playing them. Thank you for your support. We are looking forward to an exciting and enriching year with your child.

SHARING MATH IN EVERYDAY LIFE

+ **Budget** Share the budget (household, food, clothing, phone, vacation etc.) with your child.

+ **Banking** Explain and share interest rates with your child.

+ **Grocery Shopping**

Have your child estimate the total bill.

Share any money saving techniques with your child (coupons, percent discounts, etc).

Have your child compare unit prices to find the better deal.

+ **Purchasing Gasoline**

Have your child predict the cost of gasoline and how far you can travel on one full tank based on your car's mileage.

+ **Going on Vacation!**

Car: Before the vacation, ask your child to predict how long the drive will take based on an average speed of 60 miles per hour (no more "are we there yet!").

Airplane, Bus, Train: Have your student practice elapsed time (time of arrival versus time of departure).

+ **Going out to Eat** Have your child help figure out the tip.

+ **Baking** Have your child follow a recipe (dividing a recipe in half practices fraction operations).

+ **Construction Project**

Have your child help you plan and measure prior to construction.

+ **Sports** Share sport statistics with your child (shooting percentages, golf scores, baseball averages, etc)

GAMES

The following list of games, excerpted from *Games and Their Uses in Mathematics Learning* (Sharma, 2008), will help your child sharpen thinking skills, make inferences, draw conclusions, evaluate answers and strengthen reasoning. Beside each title are the skills and concepts which are reinforced.

- **Simon or Mini Wizard** (sequencing, following multi-step directions, visual and auditory memory)
- **Battleship** (spatial orientation, visualization, visual memory)
- **Cribbage** (number relationships, patterns, visual clusters)
- **Concentration** (visualization, pattern recognition, visual memory)
- **Chinese Checkers** (patterns, spatial orientation/space organization)
- **Pachisi** (sequencing, patterns, number relationships)
- **Checkers** (sequencing, patterns, spatial orientation/space organization)
- **Othello** (pattern recognition, spatial orientation, visual clustering, focus on more than one aspect, variable or concept of time)
- **Score Four or Connect Four** (pattern recognition, spatial orientation, visual clustering, geometric patterns)
- **Qubic** (pattern recognition, spatial orientation, visualization, geometrical patterns)

More Games:

- **Kalah or Mankalah** (sequencing, counting, estimation, visual clustering)
- **Master Mind** (sequencing, logical deduction, pattern recognition)
- **Four Sight** (spatial orientation, pattern recognition, logical deduction)
- **Card Games** (visual clustering, pattern recognition, number facts)
- **Dominos** (visual clustering, pattern recognition, number facts)
- **Stratego** (spatial recognition, logical deduction, graphing)
- **Number War Games** (visual clustering, arithmetic facts, mathematics concepts)

WEBSITES FOR MATH GAMES & HELP

<http://www.khanacademy.org/>

<http://www.ixl.com/math/grade-8>

<http://calculationnation.nctm.org/>

<http://mathforum.org/dr.math/>

Summer Work

Name _____ ID: 1

Week 1

Each number is divisible by which of the following: 2, 3, 5, 6, 9, 10?

1) 64

2) 54

Find the GCF of each.

3) 6, 21

4) 20, 40

Find the LCM of each.

5) 40, 24

6) 16, 40

Evaluate each expression.

7) $15 \div (4 - 1) + 4$

8) $6 - (3 + 1 + 1)$

9) $1 + 2^3 + 5$

10) $5 + 3 + 16 \div 4$

Evaluate each using the values given.

11) $q + 4 - p$; use $p = 2$, and $q = 2$

12) $hj + 4$; use $h = 5$, and $j = 4$

Evaluate each expression.

13) $39.4 - 16.5$

14) $49.4 + 32.5$

15) $1\frac{7}{8} - 1\frac{5}{6}$

16) $4\frac{3}{8} + \frac{2}{3}$

17) $\frac{1}{2} + \frac{3}{8}$

18) $4\frac{3}{7} + 1\frac{4}{7}$

Summer Math

Name _____ ID: 1

Week 2

Evaluate each expression.

1) $29.39 - 7.9$

2) $26.1 + 16.2$

3) $2\frac{1}{2} + 2\frac{1}{3}$

4) $2\frac{1}{8} - 1\frac{1}{2}$

5) $5.2 - (2.8 - 1.6)$

6) $4.8 + 5.1 - 1.2$

7) $5.9 + 3 - 4.2$

8) $(4.7 - 1.2)^2$

Simplify each expression.

9) $8(x - 7)$

10) $4(x + 7)$

Find each quotient.

11) $6.2 \div 0.2$

12) $2.7 \div 0.6$

Questions 13-16
were removed.
☺

Solve each equation.

17) $56 = 4p$

18) $a - 7 = 4$

19) $7 = 1 + k$

20) $7 = \frac{n}{17}$

Summer Math

Week 3

Find each quotient.

1) $6.3 \div 0.8$

2) $7 \div 0.5$

3) $0.1 \div 0.4$

Find each product.

4) 7.09×3.5

5) 5.6×1.9

6) 2.1×4.41

7) 0.4×2.74

Round each to the place indicated.

8) 5.60625

9) 5.34723

10) 2.051

11) 5.873945

Write each as a decimal. Use repeating decimals when necessary.

12) $\frac{2}{5}$

13) $\frac{77}{100}$

14) $\frac{1}{4}$

Write each as a percent. Use repeating decimals when necessary.

15) $\frac{1}{10}$

16) $\frac{79}{100}$

17) $\frac{2}{3}$

Write each as a decimal. Round to the thousandths place.

18) 0.7%

19) 80%

20) 92%

Summer Math

Name _____

ID: 1

Week 4

Find the GCF of each.

1) 48, 36

2) 39, 36

Find the LCM of each.

3) 27, 36

4) 20, 24

Solve each proportion.

5) $\frac{n}{9} = \frac{4}{6}$

6) $\frac{4}{k} = \frac{2}{9}$

7) $\frac{6}{3} = \frac{n}{8}$

Write each as a decimal. Round to the thousandths place.

8) 9%

9) 33.3%

10) 67%

11) 51%

Write each as a fraction.

12) 57%

13) 90%

14) 60%

15) $33.\overline{3}\%$

Solve each problem.

16) 94 is what percent of 119?

17) 29 is what percent of 42?

Evaluate each expression.

18) $3 - \frac{3}{5}$

19) $3\frac{5}{6} - 2\frac{3}{4}$

Solve each equation.

20) $\frac{n}{12} = 7$

Calculator
Section

Name _____ ID: 1

Summer work

Week 5

Evaluate each expression.

1) $2\frac{3}{5} + \frac{3}{7}$

2) $3\frac{3}{8} - \frac{1}{6}$

Find each quotient.

3) $\frac{1}{3} + 1\frac{1}{8}$

4) $3\frac{2}{3} + 4\frac{1}{2}$

5) $2 + \frac{5}{3}$

6) $1\frac{5}{8} + 4\frac{1}{2}$

Find each product.

7) $1\frac{3}{4} \times 3\frac{6}{7}$

8) $\frac{2}{3} \times \frac{2}{3}$

9) $3\frac{1}{4} \times 2$

Write each as a fraction.

10) 0.935

11) 0.66

12) 0.96

13) $33.\overline{3}\%$

14) 10%

15) 62.5%

Find each product.

16) 12.7×11.9

17) 8.3×1.29

18) 4.3×2.74

Find each quotient.

19) $9.1 \div 0.8$

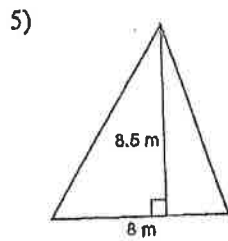
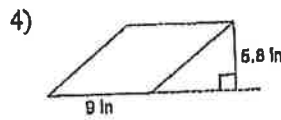
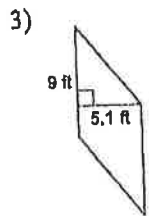
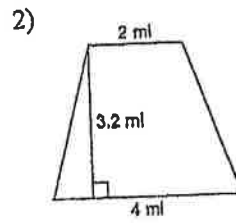
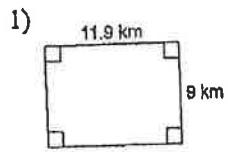
20) $\frac{8.4}{0.3}$

Name _____ ID: 1

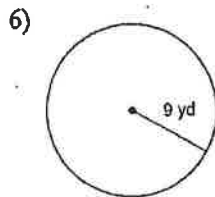
Summer math

week 6

Find the area of each.

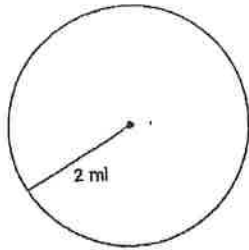


Find the circumference of each circle. Round your answer to the nearest tenth.

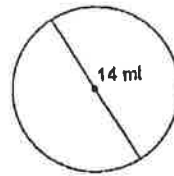


Find the area of each. Round your answer to the nearest tenth.

7)

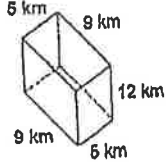


8)

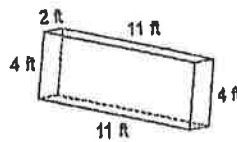


Find the volume of each figure. Round to the nearest tenth.

9)

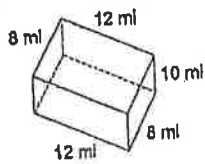


10)



Find the surface area of each figure. Round to the nearest tenth.

11)



Summer Math

Name _____ ID: 1

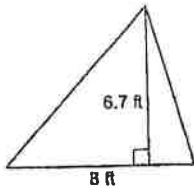
week 7

Find each difference.

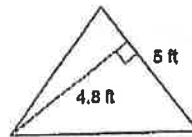
1) $3\frac{1}{5} - 2\frac{2}{3}$

Find the area of each.

2)



3)



Write each as a percent. Write remainders as a fraction.

4) $\frac{1}{5}$

5) $\frac{7}{20}$

6) $1\frac{22}{25}$

7) $\frac{1}{8}$

Find each quotient.

8) $\frac{6.3}{8.4}$

9) $\frac{2.7}{0.02}$

Simplify each expression.

10) $7(k-7)$

11) $8(n+4)$

Solve each equation.

12) $v + 15 = 24$

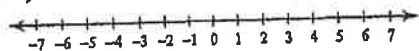
13) $15n = 60$

14) $m - 3 = 0$

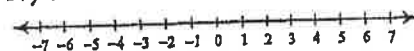
15) $x - 6 = 10$

Draw a graph for each inequality.

16) $n \geq 1$



17) $x > 5$



Summer work

Name _____ ID: 1

Week 8

Evaluate each expression.

1) $10^2 - (1 + 6)$

2) $(5 + 2)(6 + 5)$

3) $5(8 \times 3 - 8)$

4) $\frac{12}{2} + 9 - 3$

5) $\frac{8 + 1 + 15}{4}$

6) $7 \times 5 - (3 + 1)$

Write each as an algebraic expression.

7) a more than 6

8) r decreased by 9

9) n cubed

10) the sum of d and 6

11) 24 decreased by 22

12) the quotient of n and 3

13) the difference of 25 and 7

14) the product of 9 and n

Solve each problem.

15) What percent of 159 is 124?

16) What is 35% of 60?

17) 62 is what percent of 124?

18) 13% of what is 156?

Write each as a percent. Round to the nearest tenth of a percent.

19) 0.01

20) 0.08

Calculator
Section

