

# Montgomery Township

## Lower Middle School

Friday, January 19, 2018

Dear Families,

The time has come to prepare for the Grade 5 Mid-Year Math Assessment. The purpose of this assessment is to give formative information on each student's progress, provide students the opportunity to review concepts since the beginning of the year, and to provide children with the experience of a cumulative assessment.

This assessment will only count as one **quiz grade and does NOT count toward math placement.**

Your child received a Study Guide detailing the specific concepts that will be covered (see attached). Answers to all these problems will be posted on the LMS Website under the Math Department (See link on the left side of the LMS Math Dept. webpage). We recommend that your child review with this guide in order to have the greatest success.

Math Dept. Webpage: <https://www.mtsd.k12.nj.us/domain/933>

There will be a review period on *Tuesday, February 13<sup>th</sup>* .

**The Grade 5 Mid-Year Math Assessment will be given on Thursday, February 15<sup>th</sup>**

Should school be closed due to inclement weather the assessment will be given on the next school day.

Please sign, detach, and return the bottom of this form to your child's math teacher to confirm receipt of this study guide.

Thank you,  
*The Fifth Grade Math Team*

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Kindly return to your child's math teacher by February, 2<sup>nd</sup>.

I have received the Grade 5 Mid-Year Math Assessment Study Guide for the Mid-Year assessment that will be given on Thursday, February 15<sup>th</sup> in their math class. If schools are closed due to inclement weather the Mid-Year Assessment would be given the next school day.

Child's name: \_\_\_\_\_ Math Teacher: 5 \_\_\_\_\_

Parent's signature: \_\_\_\_\_

# *Grade 5 Mid-Year Assessment Study Guide*

Your child will take the Grade 5 Mid-Year Assessment during class on February 15<sup>th</sup> 2017. Should school be closed due to inclement weather the assessment will be given on the next school day. The entire Mid-Year Assessment will only count as one **quiz** grade and is **not a factor in math placement for next year**. The purpose of this assessment is to give formative information on each student's progress, provide students the opportunity to review concepts since the beginning of the year, and to provide children with the experience of a cumulative assessment.

This guide provides problems from each topic in a manner they may encounter questions on the assessment. It would be helpful for students to use this as a review.

Answers to this study guide, as well as the guide itself, will be posted on the LMS Math Department web site. The guide will be posted immediately and the answers will be posted in several days.

Math Dept. Site: <https://www.mtsd.k12.nj.us/domain/933>

## *How can I help my child?*

- Review any topics that your child had difficulty, this would be an excellent place to start.
- Encourage your child to do problems from the Study Guide. It is best for the student to do a few problems each day, rather than many at one given time.
- Problems from the Topic Test at the end of each Topic in the enVision textbook are another resource.
- Encourage your child to ask specific questions. Your child's teacher is an excellent resource. Come to *the in-class review session (Tuesday, February 13<sup>th</sup>)* with questions they don't understand or need/want more practice with.
- ***Relax. Encourage your child to relax.*** This assessment is to inform your child's teacher and you of your child's progress, as well as to provide them the experience of a cumulative assessment.

The general topics on the Mid-Year Assessment are:

*Place Value & Adding/Subtracting Decimals*  
**TOPICS 1 & 2**

*Multiplying Whole Numbers*  
**TOPIC 3**

*Division with Whole Numbers*  
**TOPICS 4 & 5**

*Adding & Subtracting Fractions & Mixed Numbers*  
**TOPICS 9 & 10**

Wishing your child the best success,  
*The Fifth Grade Math Team*

## **TOPIC 1 Place Value**

I. Write the number in Word Form:

1) 7,123 \_\_\_\_\_

2) 18,345 \_\_\_\_\_

II. Write the number in Standard Form:

1)  $8,000,000 + 300 + 9$  \_\_\_\_\_

2)  $60,000,000 + 10,000 + 20 + 3$  \_\_\_\_\_

III. Write the number in Expanded Form:

1) 85,000,011,000 \_\_\_\_\_

2) 1,000,102,200 \_\_\_\_\_

IV. Write the decimal as a fraction or a mixed number:

1) 3.2 \_\_\_\_\_

2) 0.7 \_\_\_\_\_

V. Write the fraction or mixed number as a decimal:

1)  $2\frac{2}{5}$  \_\_\_\_\_

2)  $\frac{389}{500}$  \_\_\_\_\_

Word Problem:

Walter has \$200. Sally has 10 times as much money as Walter. How much money does Sally have?

### **TOPIC 2 Adding & Subtracting Decimals**

- 1) Add:  $27.80 + 3.004 =$  \_\_\_\_\_
- 2) Subtract:  $43.95 - 7.506 =$  \_\_\_\_\_
- 3) Add:  $17.49 + 21 =$  \_\_\_\_\_
- 4) Subtract:  $17.89 - 9.747 =$  \_\_\_\_\_
- 5) Estimate:  $19.9 + 17.03 =$  \_\_\_\_\_

Word Problem:

Kerry bought a loaf of bread for \$3.49, a jar of preserves for \$2.29 and a jar of peanut butter for \$3.89. Round to nearest dollar and determine about how much Kerry spent. Write an equation to show your work.

### **Topic 3: Multiplying Whole Numbers**

1) Use patterns and properties to solve mentally.

- a.)  $70 \times 20 =$  \_\_\_\_\_
- b.)  $7,000 \times 80 =$  \_\_\_\_\_
- c.)  $200 \times 50 =$  \_\_\_\_\_
- d.)  $7,000 \times 6 =$  \_\_\_\_\_

- 2) Each of the 35 members of the baseball team is required to participate in the candy bar fundraiser. The coach estimates that each member can sell 28 candy bars. Estimate how many candy bars they will sell. (Show your work!)

Write the complete equation you used to estimate:

\_\_\_\_\_

- 3) Multiply:

$$455 \times 4 = \underline{\hspace{2cm}}$$

- 4) Multiply

$$86 \times 7 = \underline{\hspace{2cm}}$$

- 5) Multiply

$$25 \times 46 = \underline{\hspace{2cm}}$$

- 6) Multiply

$$236 \times 71 = \underline{\hspace{2cm}}$$

7) Suppose a local charity collected 216 cans of food every day for 18 days. How many cans of food did the charity collect in all?

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(units)

8) Write  $5^3$  in expanded form

expanded form: \_\_\_\_\_

9) Write the value of  $3^4$

Value : \_\_\_\_\_

10) Write  $7 \times 7 \times 7 \times 7 \times 7$  in exponential notation

Exponential Notation: \_\_\_\_\_

### Topic 4-5: Dividing by 1 and 2-Digit Divisors

**Use mental math to find the quotient.**

1)  $2,800 \div 70 = \underline{\hspace{2cm}}$

**Write the name of the correct place.**

2) If 4,932 is divided by 9, where should the first digit of the quotient be placed?

\_\_\_\_\_

**Find the missing number.**

	21	
n	<div style="border: 1px solid black; padding: 10px; display: inline-block;">693</div>	

3)  $n = \underline{\hspace{2cm}}$

**Divide. Show all steps. Write the remainder as a fraction.**

4)  $832 \div 6 = \underline{\hspace{2cm}}$

5)  $848 \div 8 = \underline{\hspace{2cm}}$

**Write a complete estimated equation.**

- 6) Mary is putting tiles on her kitchen floor. If she has 1,663 tiles to place in 19 rows, about how many tiles will she need to place in each row?
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**Solve. Show all steps.**

- 7) There are 16 ounces in a pound. If you have 448 pounds of chocolate, how many ounces of chocolate would you have?

\_\_\_\_\_ (label)

**For questions 8 through 10, divide. Show all steps. Write the remainder as a fraction.**

8)  $128 \div 16 =$  \_\_\_\_\_

9)  $234 \div 55 =$  \_\_\_\_\_

10)  $\$4,418 \div 47 =$  \_\_\_\_\_



## Topic 9-10: Adding & Subtracting Fractions & Mixed Numbers

### Directions.

1)

The table to right shows the number of organisms Arjun counted in a square meter in his backyard. What fraction of the organisms listed are ants?

Ants	15
Grasshoppers	2
Worms	4

\_\_\_\_\_

For Questions 2-5 Estimate the sum or difference of the fractions by replacing each fraction with 0,  $\frac{1}{2}$  or 1. Show the complete estimated equation.

2)  $\frac{1}{8} + \frac{8}{9} =$  \_\_\_\_\_

3)  $\frac{9}{11} - \frac{1}{7} =$  \_\_\_\_\_

4)  $\frac{8}{15} + \frac{7}{13} =$  \_\_\_\_\_

5)  $\frac{9}{10} + \frac{4}{9} =$  \_\_\_\_\_

For Questions 6-9 find the sum (add) of the fractions. Be sure to simplify answers.

6)  $\frac{1}{6} + \frac{2}{3} =$  \_\_\_\_\_

7)  $\frac{2}{5} + \frac{3}{4} =$  \_\_\_\_\_

8)  $2\frac{2}{7} + 3\frac{3}{14} =$  \_\_\_\_\_

9)  $3\frac{7}{9} + 5\frac{4}{7} =$  \_\_\_\_\_

For Questions 10-13 find the difference (subtract) of the fractions. Be sure to simplify answers.

10)  $\frac{3}{4} - \frac{1}{3} =$  \_\_\_\_\_

11)  $3\frac{8}{11} - 2\frac{2}{5} =$  \_\_\_\_\_

12)  $12\frac{2}{7} - 3\frac{11}{14} =$  \_\_\_\_\_

13)  $8\frac{4}{5} - 5\frac{1}{3} =$  \_\_\_\_\_

14) Samantha cuts a board  $20\frac{3}{4}$  inches long from a board that is 60 inches long. How long is the piece that is left over after she cuts?

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15) Renav is gluing a ribbon around a picture frame that is  $12\frac{1}{4}$  inches tall and  $8\frac{1}{2}$  inches wide. How much ribbon does Renav need to glue once around the picture frame?

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16) Theo does his math homework and he gets an answer of  $\frac{18}{42}$ . Katelyn explains to him that this fraction is not simplified (reduced). She shows him how to completely simplify his answer correctly. What is the completely simplified fraction that Katelyn shows?

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17)

The table to right shows the amount of ingredients for a certain recipe. All combined, how much more flour is used than sugar?

Flour	$2\frac{1}{2}$ cups
Sugar	$1\frac{3}{4}$ cups
Eggs	4 cups
Butter	1 cup
Milk	1 cup