Pond Road Middle School

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Dear Parents/Guardians,

Congratulations on the completion of your child's 5th grade year! As our students prepare for the middle school experience, it is important that they maintain the skills necessary to be successful in mathematics. The mathematics teachers have prepared a summer packet for the students to complete. This will enhance and strengthen their skills.

The packet is located on the Pond Road Middle School website. Please print out the document titled, "6th Grade math packet".

This packet will be checked during the first week of school and counted as a homework grade. Please complete the packet in its entirety. Please do not leave any questions blank. All questions should be completed by hand, and a calculator may be used only to check answers.

The website listed on the next page will link you to videos made by the mathematics teachers from Pond Road Middle School. They will serve as helpful resources as you work through the packet.

Enjoy your summer break and we look forward to seeing you again in September!

Online Information

This year, the mathematics teachers from Pond Road have made short videos to help our students with their summer packets. The videos show examples of the problems and will be a great resource over the summer. Just type the links into your web browser and enjoy!

http://www.showme.com/PRMS-Math - This is the link to the PRMS "Show Me" site. You will find all our mathematics videos here.

Listed below are the links to specific videos.

Area & Perimeter - http://www.showme.com/sh/?h=uTpm1rM

Traditional Multiplication - http://www.showme.com/sh/?h=YG5cGH2

Order of Operations - http://www.showme.com/sh/?h=hIvCcue

Adding/Subtracting Fractions - http://www.showme.com/sh/?h=zOaNMiu

Adding/Subtracting Decimals - https://www.showme.com/sh/?h=lYdNTHs

Long Division - http://www.showme.com/sh/?h=Uns3HKy

NAME _____

Section 1 - Order of Operations

Complete each problem and show all work. Write your answers on the lines at the right.

1) 9 - 6 + 7 _____

2) 9(9 - 1) _____

3) 9 - 5 - 3 _____

4) 4(10 - 4) _____

5) 3 - (1 + 7) + 8 _____

6) 30 ÷ (2 + 9 - 6) _____

7) 10 - 5 - 6 ÷ 3 _____

8) 7 + 7 - 9 + 1 _____

Section 2 - Place Value

Name the place of the underlined number.

9) 4,631,404,107 _____

10) 632,521,955 _____

Section 3 - Rounding

Round each number to the underlined place value.

11) 104,3<u>9</u>4.983 _____

12) 9<u>8</u>6,984,254 _____

Section 4 - Multiplication

Complete each problem and show all work. (Try to use traditional multiplication!)

13) 14 * 13 _____

14) 39 * 31 _____

15) 27 * 10 _____

16) 34 * 36 _____

17) 25 * 2 _____

18) 4 *41 _____

19) 16 * 9 _____

Section 5 - Division

Complete each problem and show all work. (Try to use Long Division!)

20) 5146 ÷ 62 _____

21) 616 ÷ 28 _____

22) 620 ÷ 10 _____

23) 1320 ÷ 15 _____

24) 2890 ÷ 34 _____

25) 1782 ÷ 54 _____

Section 6 - Decimals

Complete each problem and show all work.

26) 14.4 + 11.7 + 14.8 _____

27) 3.2 + 18.6 - 18.3 _____

28) 13.71 - 5.78 + 7.05 _____

29) 19.4 - 3.12 + 18.9 _____

30) 5.7 + 10.1 - 13 _____

31) 21.1 - 11.8 - 7.28 _____

32) 21.2 + 8.4 + 2.1 _____

33) 20.34 + 11.3 - 19.7 _____

Section 7 - Fractions

Complete each problem and show all work.

34) Simplify the fraction…. $\frac{18}{24}$ _____

35) Simplify the fraction…. $\frac{45}{80}$ _____

36) Convert to a mixed number… $\frac{17}{5}$ _____

37) Convert to an improper fraction… $12\frac{3}{4}$ _____

38) $\frac{3}{2} - \frac{1}{2}$ _____

39) $\frac{8}{11} + \frac{9}{11}$ _____

40) $\frac{6}{11} + \frac{7}{6}$ _____

41) $\frac{8}{7} - \frac{4}{9}$ _____

42) $5\frac{1}{12} + 6\frac{1}{8}$ _____

43) $4\frac{4}{5} - 2\frac{1}{10}$ _____

44) $\frac{3}{5} * \frac{1}{4}$ _____

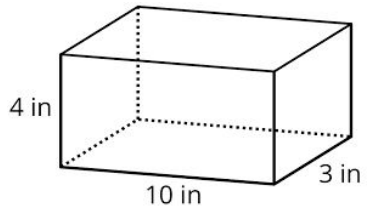
45) $\frac{1}{6}$ *of* 42 _____

46) $4\frac{1}{5} * \frac{10}{21}$ _____

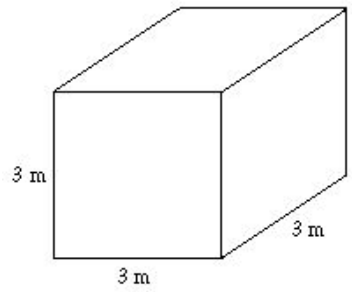
Section 8 - Geometry

Complete each problem and show all work.

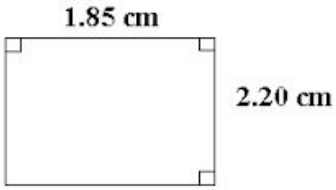
47) Find the volume of the rectangular prism. _____



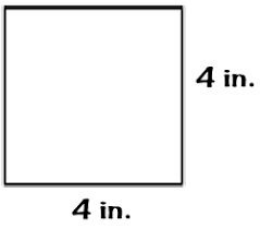
48) Find the volume of the cube. _____



49) Find the area and perimeter of the shape below. _____



50) Find the area and perimeter of the shape below. _____



Section 9 - Unit Conversions

Complete each problem and show all work.

51) Convert 4 hours into minutes. _____

52) Convert 16 pounds into ounces. _____

53) Convert 5 weeks into minutes. _____

54) Convert 276 inches into feet. _____

Money Problems

Solving money problems is a good way to apply the rules of decimals to real world situations. Determine whether to add, subtract, multiply, or divide to solve each of the following problems. Be sure to round and label your answers appropriately!

1. Frank works at Apartment Depot and earns $8.50 per hour. Last week, he worked 36 hours. What was his total pay?

2. Joe is planning a trip to Houston and has calculated $450.95 for lodging, $98.00 for food, and $114.50 for gasoline. How much will the trip cost in total?

3. Susan has $350 in her checking account. She writes checks for $45.70 for flowers, $75.53 for books, and $46.98 for CD's. How much money is left in her checking account?

4. In order to pay off the car she bought, Lauri has to make 34 more payments of $145.98. How much does she still owe?

5. The Jennings family paid $371.40 for the year for their cable service. If their payments were the same each month, how much was their monthly bill?

Stuffed with Pizza

Tito and Luis are stuffed with Pizza! Tito ate one-fourth of a cheese pizza. TIto ate three-eights of a pepperoni pizza. Tito ate one-half of a mushroom pizza. Luis ate five-eights of a cheese pizza. Luis ate the other half of the mushroom pizza. All the pizzas were the same size.

Tito says he ate more pizza than Luis because Luis did not eat any pepperoni pizza.

Luis says they each ate the same amount.

Who is correct? Show all your mathematical thinking using drawings, models, etc.

Terrific Tiles

Mrs. Jones wants to replace the rug in her classroom with tiles. The tiles are 6 inches on each side.

The rug is 6 feet by 9 feet. How many tiles does she need? Show your work and use a visual model to explain your answer.

The tiles are sold in bundles of 5. Each bundle costs $1.50. How many bundles are needed?

How much will she pay for the tiles?

You have now completed the 6th grade summer math packet. The following problems are challenge problems. If you are entering the 6A math class, these challenge problems are mandatory. However, we strongly encourage all students to attempt these problems.

Challenge #1

A runner ran 20 miles in 150 minutes. If she runs at that speed…

1. How long would it take her to run 6 miles?

2. How far could she run in 15 minutes?

3. How fast is she running in MPH?

4. What is her pace in minutes per mile?

Challenge #2

Chef Julius Grayson had an empanada recipe that called for ¾ lbs of onions and 1 ½ lbs of pork. He was preparing the recipe for a special event and needed to quadruple the recipe in order to make enough food for all of the guests. How many pounds of onions and pork does he need? Show your work.

Find the cost of the ingredients for the large event recipe if onions cost $2.99/lb and pork costs $5.49/lb. Include both an estimated solution and a true solution to check to see if your estimation is reasonable.

Challenge #3

The florist can order roses in bunches of one dozen and lillies in bunches of 8. Last month, she ordered the same number of roses and lilies. If she ordered no more than 100 roses, how many bunches of each could she have ordered?

What is the smallest number of bunches of each flower that she could have ordered?

Challenge #4

Susan has four 20 point projects for math class. Susan's scores on the first three projects are 18, 15, and 16.

What score does Susan need to earn on project #4 to earn an 85% total average?