POND ROAD MIDDLE SCHOOL

150 Pond Road Robbinsville, NJ 08691 Tel. 609-632-0940 FAX 609-918-9011 Paul Gizzo,Principal Curtis Wyers, Assist. Principal Tawrye Mason, Assist. Principal

"TODAY'S LEARNERS, TOMORROW'S LEADERS"

Summer, 2024

Dear Parents/Guardians,

Congratulations on the completion of your child's school year! As your child prepares for the 2024-25 academic year, it is important that he/she maintains the skills necessary to be successful. The mathematics teachers have prepared a summer packet for the students to complete. This will enhance and strengthen their skills.

This packet will be checked on the first day of school and counted as a homework grade. Please complete the packet in its entirety. Please do not leave any questions blank. All work should be shown for every question.

WE STRONGLY RECOMMEND WAITING UNTIL THE LATTER PART OF THE SUMMER TO COMPLETE THIS PACKET AS THAT WILL HELP THE STUDENTS BEST REFRESH THEIR SKILLS PRIOR TO SCHOOL BEGINNING IN SEPTEMBER!!!

The packet is located on the Pond Road Middle School website. Please print out the document titled, "Incoming Pre-Algebra Math Packet".

Tutorial videos for each type of problem have also been provided in the document and can be accessed by the hyperlink.

The following websites may be used for additional reinforcement and review. www.khanacademy.org www.coolmath.com www.aaamath.com www.funbrain.com www.kidsnumbers.com www.mathleague.com www.mathplayground.com

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

Rising Pre-Algebra Summer Packet

PLEASE WRITE ALL ANSWERS ON THE LINES AT THE RIGHT. SHOW ALL WORK FOR EVERY PROBLEM. CALCULATOR USE IS NOT ALLOWED.

PART 1 – DECIMALS

Adding and Subtracting Decimals	*** http://www.showme.com	n/sh/?h=lYdNTHs
Find each sum or difference.		
1) 46.2 – 34.09	2) 9.06 – 7.2	1
		2
3) 8.037 + 7 + 12.4	4) 15.65 - 8.7	3
		4
Multiplying Decimals	*** http://www.showme.com/sh/?h=	=3DLlJyq
Find each product.		
5) 1.42 • 7.2	6) (5.03)(2.8)	5
		6
7) (0.006)(3.75)	8) $(3.2)^2$	7
		8

Dividing Decimals	*** http://www.showme.com/sh/?h=	<u>EpWayjg</u>
Find each quotient.		
9) 346.8 ÷ 5.1	10) $0.32\overline{)3968}$	9
		10
11) $2814 \div 0.14$	12) 99 ÷ 0.09	11
		12

Write the answer for the following using the rules of operations with base of 10. *** <u>http://www.showme.com/sh/?h=DXBj960</u>

13)	87.3 x 1,000	13
14)	98.765 x 10,000	14
15)	34.56 ÷ 10,000	15
16)	234.563 ÷ 100	16

PART 2 – FRACTIONS

Adding and Subtracting Mixed Numbers

*** http://www.showme.com/sh/?h=VqHIIvg

Find each sum or difference. Write it in simplest form.

		20	
19) $14\frac{8}{9} - 5\frac{1}{2}$	20) $23\frac{1}{4} - 7\frac{4}{5}$	19	
		18	
17) $2\frac{2}{5} + 3\frac{4}{9}$	18) $7\frac{3}{4} + 11\frac{2}{3}$	17	

Find each product or quotient. Write it in simplest form.

21) $5 \cdot 1\frac{1}{7}$ 22) $3\frac{3}{5} \cdot 2\frac{1}{12}$ 21.

22. _____

23)
$$5\frac{5}{8} \div 5$$
 24) $8\frac{1}{3} \div 4\frac{4}{5}$

24. _____

PART 3 – NUMBER SENSE

*** http://www.showme.com/sh/?h=OiPlv28

25) Write the prime factorization of 144.

26) Find the Greatest Common Factor (GCF) of 12 and 18.

27) Find the Least Common Multiple (LCM) of 24 and 36.

Read and answer the following questions carefully.

28)	Round 8,956.456 to the hundredths place.	28
29)	Round 1,456.789 to the tenths place.	29
30)	Round 6,543.982 to the ones place.	30
31)	Round 4,317.689 to the tens place.	31

Round the following dollar amounts correctly to the nearest penny.

32)	\$49.1748	32
33)	\$1,839.586	33
34)	\$651.398	34
35)	\$748.996	35

36) Order the following numbers from <u>least to greatest</u>. Rewrite the numbers in order.

0.8 0.5 0.85 0.58 0.508 0.805

37) Order the following numbers from greatest to least. Rewrite the numbers in order.

-2.3 -2 -1.7 -2.1 -1 -2.9

*** http://www.showme.com/sh/?h=8A06BHc

38) What is the divisibility rule for **3**?

What is the divisibility rule for 4?

What is the divisibility rule for 9?

39) Using the above rules, determine if 1,347 is divisible by 3?

Using the above rules, determine if 18,728 is divisible by 4?

Using the above rules, determine if 431,262 is divisible by 9?

PART 4 – PLOTTING POINTS

*** http://www.showme.com/sh/?h=KQ8cMhk

Plot the following points on the graph to the right. Label them.

- 40) A: (5, 2)
- 41) B: (-2, 6)
- 42) C: (3,0)
- 43) D: (-1, -4)



PART 5 – 2D GEOMETRY

Find the Area and Perimeter of the following figures. Show work for the areas. Use 3.14 for pi. You may use a calculator.

The following formulas might be helpful.



PART 6 – 3D GEOMETRY

The following formulas might be helpful.



48) Find the Volume of the following figure. Show all work. Use 3.14 for pi and use a calculator.



<u>PART 7 – EQUATIONS</u> *** <u>http://www.showme.com/sh/?h=uAWAxF2</u>

53._____

49) Is 7 a solution to the following equation? Show work. Do not just solve the equation.

4x - 12 = 16

Solve the following equations using inverse operation. Show all work.

Example:
$$x + 18 = 30$$

 $-18 - 18$
 $x = 12$
50) $9 + x = 12$
51) $3 = x - 14$
50. _____
51. ____
52) $5x = 30$
53) $\frac{x}{4} = 11$
52. _____

PART 8 – INTEGERS

*** http://www.showme.com/sh/?h=g6dHohc

Simplify the following using the order of operations. Show all work.

54) $60 - 20 \div 4 \bullet 5$	55) $24 + 3^2 - 2(6 + 5)$	54
	55	
Simplify.		
56) -2-8-(-3)	57) (-6)(3) - 12	56
		57
58) $\frac{-24}{-8} - (5)(-2)$	59) 9-20 -(6-8)	
		58
		59
PART 9 – PROP	ORTIONS *** http://	/www.showme.com/sh/?h=0QzcOHY
60) Solve the proportion.	$\frac{5}{9} = \frac{x}{15}$	
		60
61) Use a proportion to solv	ve the following problem.	

If Frank can read 12 books in 30 days, how many complete books can he read in 50 days?

61._____

PART 10 – COMPLEX EQUATIONS

	*** <u>http://w</u>	www.showme.com/sh/?h=gCvzFTM
Solve the following. Show a	all work.	
62) $3x + 11 = 35$	63) $9x - 5 = 22$	62
	63	
64) $4(2x-5) = 30$	65) $5x - 2x + 5 = 17 - 9$	
		64
		65
PART 11 – INE	OUALITIES	
	*** <u>http://w</u>	ww.showme.com/sh/?h=lnY0dRQ
Graph the following inequa	lities on the number line to the rig	ght of each problem.
66) x < 5	66. ←	>
67) $x \ge 2$	67. ←	>
68) $-3 < x$	68. <	

69. _____

70. _____

Solve the following inequalities. Show all work.

 $69) \quad 4 + x \leq 20 \qquad \qquad 70) \quad -7x > 21$

PART 12 – PROBLEM SOLVING

*** https://virtualnerd.com/middle-math/ratios-proportions-percent/ratios-rates/equivalent-ratios-table-example

71) Caela is making brownies for a party. The recipe calls for 2/3 pound of butter for each batch of brownies.

Part A

How many full batches of brownies can Caela make from 5 pounds of butter? Explain using a number sentence, mathematical model, and/or words.

Part B

How many more pounds of flour would Caela need to make 9 batches of brownies? Explain using a number sentence, mathematical model, and/or words.





12cm

