POND ROAD MIDDLE SCHOOL

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"TODAY'S LEARNERS, TOMORROW'S LEADERS"

Summer Before 8th Grade

Dear Parents/Guardians,

Congratulations on the completion of your child's 7th grade year! As your child prepares for the middle school experience, it is important that they maintain 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!!!

Please double check that you have printed out the correct summer packet that aligns with the class your child will be taking in 8th grade. This packet is for students who will be taking **Math 8** in 8th grade.

Some example problems have been provided for reinforcement as well as help in completing this summer packet. Please click on the link for additional help or you may visit the following websites.

www.aaamath.com www.coolmath.com www.funbrain.com www.kidsnumbers.com www.mathleague.com www.khanacademy.org www.mathplayground.com

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

N	ame:	
ΙN	ame.	

Rising 8th Grade Summer Packet

For students entering Math 8

PLEASE WRITE ALL ANSWERS ON THE LINES AT THE RIGHT.

SHOW ALL WORK FOR EVERY PROBLEM.

USAGE OF A CALCULATOR IS NOT ALLOWED UNTIL PART 5.

PART 1 – ORDER OF OPERATIONS

Simplify. WATCH YOUR SIGNS!!!

1) $8 - 3 + 9 - 2$	2) (-9)(-2)(3)	1
		2
3) $-30 \div -5$	4) 4-13	3
		4
5) $(-5)^2$	6) –3 ²	5
		6
7) -2^5	8) $(-7)^3$	7
		8
9) $12-6 \div 2 \bullet 3$	10) $9-(6+4^2)$	9
		10
11) 14 + -2	12) $15 + 2 - -7 $	11
		12
13) 20 - 10 + 2(5 - 12)	$14) \frac{5 - (2 - 5)^2}{4 + 24 \div 6(3)}$	13
		14

PART 2 – RATIONAL NUMBERS

15) Plot the following data set on the given number line. Make sure you label your points.

 \rightarrow

$$\{-2.3, 4\frac{1}{3}, 0.75, 4.5, \frac{30}{6}, \left|-\frac{29}{4}\right|\}$$

16) Write the numbers in order from least to greatest.

	{9	0.089,	9.8,	9.0,	9.08,	9.088,	9.009
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Compare using <, >, or =. Show work to justify your answer.

17) $\frac{3}{7}$ _____ 0.43 18) 3.54 _____ 3 $\frac{5}{9}$

Simplify. Show all work. WATCH YOUR SIGNS!!!

19)	3.87 + 1.2 + 9.05	20)	23.34 - 8.95	19
				20
21)	18.12 – (– 5.79)	22)	-14.6 + 23.4 + (- 3.6)	21.
,	×	,		22
23)	(1.42)(-7.2)	24)	$2814 \div 0.14$	23
				24

Simplify. Show all work for credit. Write your answers as proper or improper fractions or mixed numbers.

(Example: http://www.showme.com/sh/?h=NCF0t3w) 25) $2\frac{2}{5} + 3\frac{4}{9}$ 26) $27\frac{3}{4} + 11\frac{3}{7}$ 25._____ 26._____ 27) $14\frac{8}{9} - 5\frac{1}{2}$ 28) $23\frac{1}{4} - 7\frac{4}{5}$ 27._____ 28._____ 30) $-5 \cdot 1\frac{1}{7}$ 29) $18 - 6\frac{4}{11}$ 29._____ 30._____ 31) $\frac{32}{48} \cdot \frac{60}{64}$ 32) $5\frac{3}{5} \cdot -3\frac{4}{7}$ 31._____ 32._____ 33) $5\frac{5}{8} \div 5$ 34) $-8\frac{1}{3} \div -4\frac{4}{5}$ 33._____

34._____

PART 3 – EXPRESSIONS

Translate the following expressions and equations.

35)	Eight more than triple a number	35
36)	The quotient of twelve and a number is five.	36
37)	Seven times the sum of a number and two	37
38)	Forty is the product of a number and nine.	38

Evaluate the following if: w = 3, x = -5, y = -2, m = 2.4, n = 7

<pre>ble: http://www.showme.com/sh/?h=w3kFme8)</pre>
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39)	wx – yn	40) 9w - x	39
			40
41)	$x^2 - 4y$	$42) \frac{wxy + ny}{-2xy}$	41
			42
42)		(4) mx x^2	42
43)	xy – m	44) $\frac{1}{w} + y - 3y^{-1}$	43

44._____

Simplify the following expressions

45)	8x - 9 + 2x + 3 - 14x	46)	10 - 8m - 4 + m - 9	45
				46
47)	5(2x-3) + 6	48)	5 - 4(3x + 1) + 11x	47
				48

PART 4– EQUATIONS

49) State how you would <u>check</u> to see if 7 is a solution to the given equation.DO NOT SOLVE THE EQUATION!!!

3x - 5 = 12

Solve the following equations. Show all work.

(Example: <u>http://www.showme.com/sh/?h=ujv9Ck4</u>)

50) x + 6 = -951) $\frac{x}{8} = -5$ 50. _____ 51. ____ 52) 12 = -2n53) 14 + y = -1152. _____

53. _____

YOU SHOULD USE A CALCULATOR FOR THE REST OF THE PACKET

PART 5 – RATES/RATIOS/PROPORTIONS

Find the unit rate

54) work for 12 hours and earn \$140	54
55) travel 900 miles in 15 hours	55

Solve the following proportions. Round answer to the nearest tenth.

56) $\frac{3}{7} = \frac{11}{x}$ 57) $\frac{y}{3} = \frac{191}{20}$ 56
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58)	If Susan can read 40 pages in 12 minutes, how many pages
	can she read in 50 minutes?

58._____

57._____

59) The key on a map says 2 inches equals 7 miles. If two cities are 9 inches apart on the map, how far apart are they in real life?

59. _____

PART 6 – PERCENTS

Convert to a decir	nal.				
60) $\frac{7}{20}$	61) 31%	62) $\frac{4}{9}$	60		
			61		
			62		
Convert to a fract	ion.				
63) 3.25	64) 8%	65) 0.125	63		
			64		
			65		
Convert to a perce	ent.				
66) 0.84	67) $\frac{2}{3}$	68) 6.12	66		
			67		
			68		
Estimate using fractions (not proportions)					
69) 34% of 15		70) 74% of 81	69		
			70		
Solve. Show work	ζ.				
71) 56 is what percent	cent of 80?	72) 19 is 20% of what number	71		
			72		

73) 30 students in grade 8 finished their summer packet before August 15. This was 12% of all the students. How many students are in grade 8? 73._____ 74) There are 1,200 people at the beach. If 88% of them went in the water, how many people **DID NOT** go in the water? 74._____ 75) A \$800 T.V. is on sale for 15% off. What is the cost of the T.V.? 75._____ 76) You go out to dinner and the bill is \$45.12. You want to leave an 18% tip. In total, how much money should you leave? 76. _____ 77) A car dealership buys a car for \$20,500 and marks up the price by 12%. How much does the dealership sell the car for? 77._____ 78) The cost of a calculator is \$31. If the tax rate is 7%, what is the final cost of the calculator? 78._____

Solve the following problems using any method.