

Name _____

Math

Date _____

70__

Incoming 7th Grade Summer Break PacketProblem Set One: Fractions and DecimalsOrder the following sets of numbers on the number line from least to greatest.

1) $\frac{4}{5}, -\frac{2}{3}, -\frac{2}{6}, -0.75$



2) $\frac{3}{8}, \frac{2}{9}, -0.6, -\frac{3}{8}$



Evaluate each of the following. Show your work.

3) $9.6 + 8\frac{2}{5}$

4) $(5.9)(1.102)$

5) $7\frac{5}{6} - 1\frac{4}{9}$

6) $161.2 \div 3.1$

7) $\frac{13}{20} \div \frac{8}{10}$

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

$$9) 1\frac{1}{4} + 1.35 + 2.56 + 2\frac{7}{10}$$

10) One cupcake weighs $3\frac{1}{2}$ ounces. How many cupcakes are there in a 28-ounce package?

11) Which one of the following fractions is not equivalent to the others?

a. $\frac{12}{15}$

b. $\frac{20}{25}$

c. $\frac{25}{30}$

d. $\frac{28}{35}$

Show how you found your answer.

12) Gina is making a bookcase and has $92\frac{5}{8}$ inches of wood. If she uses $61\frac{3}{4}$ inches of wood for the top and bottom, how much wood does she have left for the sides?

13) Stephanie is making lasagna for a party. The recipe uses $1\frac{1}{2}$ teaspoons of basil, $\frac{2}{4}$ teaspoons of salt, $\frac{1}{8}$ teaspoons of pepper and 4 teaspoons of parsley. If she needs to make 1.5 times the recipe, how many teaspoons will she use of each ingredient? How many teaspoons will she use in total (when she combines all of the ingredients)? Show all of your work.

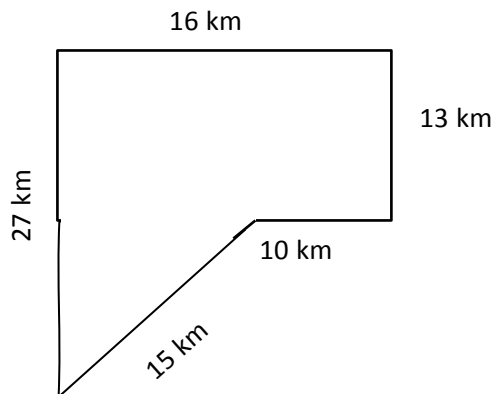
Problem Set Two: Geometry

14) If the perimeter of Milo's rectangular backyard is 16 feet. What are the possible whole number dimensions of the length and the width of the yard?

15) If the area of Jodi's deck is 36 square feet. What are the possible whole number dimensions of her deck?

16) You want to make a rectangular prism out of cardboard, without overlapping cardboard. It has the length of 3 feet, the width of 1 foot, and the height of 2 feet. How much cardboard would you need to buy? Show all your work.

17) What is the area of the irregular polygon below (not to scale)?



For questions 18 and 19 - determine whether each statement is always, sometimes, or never true. Explain or give a counter example to support your answer.

18) Both x and y coordinates of a point in quadrant 1 are negative. _____

19) The x coordinate of a point that lies on the x-axis is negative. _____

20) A box of cereal has the dimensions of 8 inches, 3 inches and 12 inches. Find the volume of the box. Show all your work.

Problem Set Three: Proportional Reasoning

- 21) If you can buy 8 gallons of gas for \$26.50, what is the unit rate?
- 22) Verizon has to install cable along a road that is $1\frac{1}{2}$ miles long. It takes the crew 1 day to lay $\frac{1}{4}$ of a mile of cable. How many days will the installation take?
- 23) Eli wants to buy a video game that costs \$35. He has a 25% coupon. How much is the discount? What will he pay for the video game?
- 24) The school is having a bake sale. It costs \$6 to make a cake. The school wants to make a 25% profit on each cake. How much should the school charge for each cake?
- 25) Sixteen of 80 dogs in a rescue kennel are puppies. What percent of the dogs in the kennel are puppies?

Problem Set Four: Algebra and Negative Numbers

Solve.

26) $56 = 7p$	27) $56 = \frac{h}{9}$	28) $\frac{k}{5} - 10 = 3$	29) $3t + 5 = 2$
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Write an algebraic expression for the following:

30) Three less than four times a number _____

31) Eight less than the quotient of a number _____

32) Twelve more than the product of 12 and y _____

33) Janie and her friends played a question and answer video game. Their scores at the end of the game were 14, -15, 8, -16, 3, 0, 12, 10. Find the median score of the game.

34) The average temperature of Saturn is -218°F while the average temperature of Jupiter is -162°F . Which planet has the lower average temperature? Explain your reasoning.

35) Find all values of x that make the statement $|x| = 7$ true. Explain your reasoning.

June 15, 2016

Dear incoming 7th grade students:

Congratulations on making it through your first year of middle school and welcome to 7th grade. The 7th grade math curriculum is a rigorous curriculum that builds on what you have learned in 6th grade math, and supports the NYS Common Core standards. In order to help prepare you for a successful transition, a summer math break packet is attached.

This summer break packet includes important 6th grade problem sets that you should know prior to the first day of school. This packet is due on **Thursday, September 8, 2016** to your math teacher. For your convenience, the packet will be posted on the MS 447 Website. It will be graded as a project. The rubric for the project is attached. We recommend that you review the rubric before you begin, as well as refer to it as you continue to work through the project. You should **NOT** use calculators.

We would also like to take the opportunity to gather some information about you and your families as soon as possible. Please return this letter with the information below completed, so that we start off the year with contact information.

We look forward to meeting you in the fall!

Sincerely,
7th Grade Math Team

Student Name: _____ Preferred Name: _____

Student email: _____

Parent/Guardian(s) names: _____

Parent/Guardian(s) emails: _____

Parent/Guardian(s) phone numbers: _____

Student and Parent/Guardian Declaration

I have completed this packet to the best of my ability and am prepared to turn it in on September 8, 2016.

student signature

parent/guardian signature

REFLECTION QUESTIONS

Student name: _____

6th grade math teacher(s) name: _____

Project Checklist

Use this tool to ensure that you have included all parts of this project

Does your packet include the following(**in the order indicated & stapled**)?

Your Name (on every sheet)	
Signed letter	
Answer Sheet	
Problem sets/questions	
Reflection	
Rubric	

- 1) What was your favorite topic in 6th grade math? Why?
What was your least favorite topic in 6th grade math? Why?

- 2) What are your strengths as a math student?
What are your weaknesses as a math student?

3) List at least 3 goals you have for 7th grade math. Explain how you plan to achieve those goals.

4) In reflection, how well do you feel you completed this packet? Explain how long it took you to complete, (what were your work habits; did you complete it in one sitting, broken up over the course of a few weeks or days, did you wait until the last minute?) How much effort did you put into this project? Explain. If you could grade yourself according to the rubric, what would it be?

Summer Homework Grading Rubric

Category	4	3	2	1
Accuracy <i>*This category is worth twice as much as all other categories</i>	33-35 problems correct	27-32 problems correct	22-26 problems correct	Below 22 problems correct
Organization/Neatness	Work is presented in a legible manner, the reader can follow the mathematical process and thinking	Work is presented in a legible manner, the reader can follow MOST of the steps toward the solution	Work is presented in an unclear manner, it is difficult for the reader to follow the steps toward solution	Work is presented in an unclear manner. The reader cannot determine the sequence of steps
Mathematical reasoning	Students shows and explains ALL work by justifying the strategy, solution and/or answer to the problem using mathematical language or demonstrating thinking	Student shows and explains MOST of the work through justifying the strategy, conclusion and/or answer, but leaves out details	Student shows and explains with minimal work and attempts to justify the strategy, conclusion and/or solution but the justification is not complete	Student shows now justification
Reflection	All 4 questions are answered in complete sentences and demonstrate thoughtful reflection.	3 questions are answered in complete sentences and demonstrate thoughtful reflections	2 questions are answered in complete sentences and demonstrate thoughtful reflection. All 4 questions are answered but demonstrate little effort and thoughtfulness.	Only one question is answered in complete sentences and demonstrates thoughtful reflection.

Total Score: _____

Teacher's comments:

Name: _____

ANSWER SHEET

Write your FINAL answer for each question in the space provided below. You MUST show ALL of your work in the space provided for each question, but transfer your final answer here. Make sure that you accurately transfer your answer from each question.

Question	Answer	Score (teacher only)
1		
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13	Basil: _____ Salt: _____ Pepper: _____ Parsley: _____ Total: _____	
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23	Discount: _____ Sale price: _____	
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