

Holy Family Catholic School  
Summer Math Packet  
Due the first week of school

Rising 6<sup>th</sup> Grade

**Purpose:** This assignment is designed to keep you thinking about math even when you're on vacation. Math is everywhere. It shows up where you're least expecting. Even though you may be used to thinking about math only in school, I want you to realize that you see math in most aspects of your life. Math can be really fun when you can start to see where you never did before.

**Directions:**

1. You may solve each problem in the space provided. If you need more space, you may do work on a separate sheet of paper; write the number and letter for which your solution goes. Your work must be done in pencil, not ink, and be neatly labeled and well organized so that it is easy to follow. You may use colored pencils if you want. You may also use graph paper as needed and attach it in the answer space.
2. Some questions require written explanations as part of the solution. You may also include additional written responses to support mathematical calculations or reasons for choosing a particular solution method. All explanations must use complete sentences. Be clear and concise in your responses in order to receive credit. Please write clearly!
3. Some questions have multiple parts (within the multiple parts). Be sure to answer each part.
4. You may use a calculator to check your work but you must show all work and computations leading to your final answers. Include general formulas that you use before making substitutions and calculations as part of your solutions.
5. The assignment will be due at the end of the first week of school (either Thursday or Friday). The due date will be announced on the first day of school.
6. The assignment counts as a homework grade. Part of the grade is given for completion (10 points) and part is given for accuracy (15 points).

Name: \_\_\_\_\_

Completion: \_\_\_\_\_

Accuracy: \_\_\_\_\_

Total Score: \_\_\_\_\_

1. Solve. Show all work.

a.  $249 + 48$

b.  $7964 - 426$

c.  $842 + 42 + 1575$

d.  $13.41 - 8.579$

e.  $62.5 + 8.14$

f.  $0.78 + 8.458$

g.  $87.48 \div 5.4$

h.  $17.4 \times 28.26$

i.  $3503.3 \div 2.65$

2. Simplify the following. Show all work. Fractions must be written in simplest form.

a.  $5(8-2)+3-8\div 2$

b.  $16+8-2*5+9$

c.  $10+9\times 24\div 8\times 6$

d.  $\frac{7}{8}-\frac{5}{6}$

e.  $\frac{9}{15}\div\frac{2}{3}$

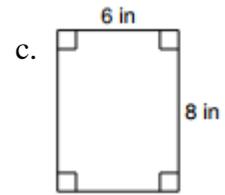
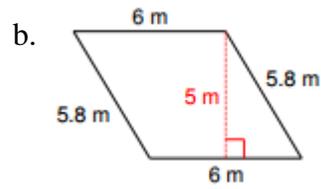
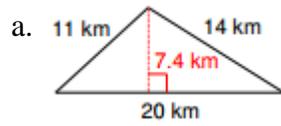
f.  $15\frac{1}{6}\div 4\frac{3}{4}$

g.  $5\frac{1}{4}-3\frac{2}{5}$

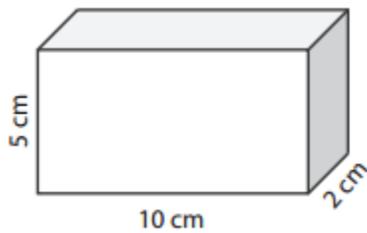
h.  $6\frac{7}{8}*3\frac{2}{5}$

i.  $7\frac{3}{4}+9\frac{2}{3}$

3. Find the perimeter and area of the following shapes. Show all work. Use correct units in your answer.



4. Find the surface area and volume of the rectangular prism. Show all work and use correct units in your answer.



5. Before going to the beach you want to get some new clothes. Since it's already summer, the malls are having fantastic sales on their summer stock. You make a list of the things you want to get while the prices are really good.

a. All bathing suits are marked down 25%. What is the decimal equivalent of the discount? What fraction represents the amount of the discount?

b. Beach towels on sale with a 10% discount. What is the decimal equivalent of the discount? What fraction represents the amount of the discount?

c. Sunglasses are also on sale for 50% off. Converting this to a fraction, find the cost of a pair of sunglasses originally priced \$28.68.



6. You're thinking of setting up a lemonade stand in your neighborhood.

a. First you need to get enough cups. You decide that five packages of cups is enough. Each package has 85 cups. How many cups do you have total?

b. If each cup is 8 fluid ounces, based on the number of cups from part a, how many fluid ounces of lemonade can you sell all together?

c. On the first day, you used 3 gallons of lemonade. The cups you used held 8 ounces. Remembering that a gallon is 128 fluid ounces, how many cups of lemonade did you sell?

d. You sold each cup of lemonade for 75 cents. During the week you sold 416 cups of lemonade. How much money did you make?



7. Your best friend is having a pool party. The pool is rectangular, 27 feet long by 15 feet wide, and has an average depth of 8 feet.

a. What is the perimeter of the pool in feet?



b. If the pool is completely full of water, what is the volume of the water in the pool?

c. After the pool is filled, it needs to be covered at night. What is the area of the cover, in square feet, so the entire pool is covered?

8. You got a part time job working in the library. At the end of each day, one of your responsibilities is to sort how many of each types of books were checked out. Of course you know that all books are separated into fiction and non-fiction. In the fiction category, you are keeping track of drama, mystery, poetry and science fiction genres. In the non-fiction category, you are keeping track of biographies, self-help, and travel genres. All books can be checked out as hard copy, or electronic. The computer keeps track of which books are checked out, and lets you sort by genre.

a. Complete the frequency table.

Book Type	Number of Books	Frequency
Biographies	14	
Drama	28	
Mystery	17	
Poetry	2	
Science Fiction	14	
Self-Help	5	
Travel	11	

b. Draw a bar graph for the book types. Use the book types along the horizontal axis, and the number of books along the vertical axis.

c. Calculate the mean, mode, median, and range of the set of numbers.

