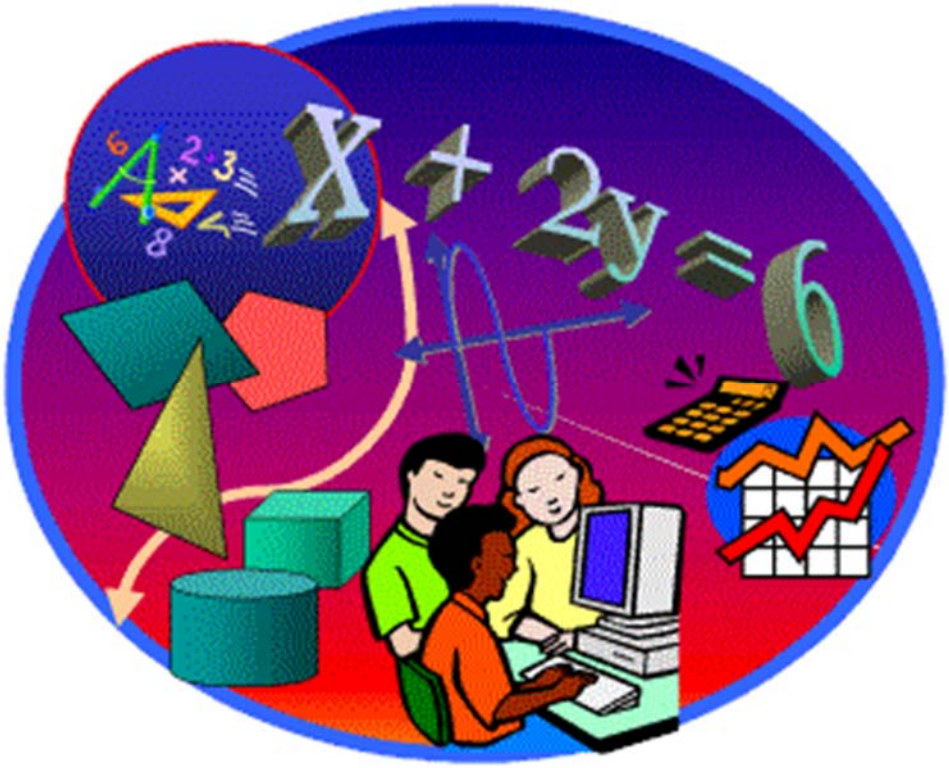
Summer Math Assignment

2019

Briggs Chaney Middle School



For Students Entering C2.0 Investigations into Mathematics

This summer math booklet was developed to provide students an opportunity to review math objectives and to improve math performance.

BRIGGS CHANEY MIDDLE SCHOOL

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Silver Spring, Maryland 20905
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Dear Student and Parent,

The purpose of this packet is to provide a review of objectives that were taught the previous school year and provide tasks related to the common core curriculum. Reviewing the material will help your child retain what he/she has learned this year, and assist them as they enter the next course in the sequence of study. The packet will be a homework grade in Marking Period 1.

An answer key can be accessed online at our school website. This answer key can be used in one of the following ways:

- Have your child check his/her work after each assignment.
- Check your child's work after each assignment.
- Check the entire packet once it is finished.

Whichever way you choose to use the answer key (posted on the BCMS website), make sure your child identifies and corrects all mistakes. Please note that these are sample answers and actual student answers may vary slightly, so it is important to check your child's work. In fact, it is anticipated that some answers and all student explanations should be different from the answer key. Please remind your child that **CALCULATORS SHOULD NOT BE USED** and **ALL WORK MUST BE SHOWN** for each activity. If work is completed on a separate paper, please submit the paper(s) with the packet; preferably stapled.

Thank you for your cooperation,
The BCMS Math Department

1. Write each expression in the correct column.

Equal to 5.4	Equal to 5.42

$2.36 + 3.06$ $\quad$ $2.16 + 3.36$ $\quad$ 2.71×2

1.80×3 $\quad$ $9.53 - 4.11$ $\quad$ $8.01 - 2.69$

2. Bill wants to run a total of 4,000 meters in 5 days. The table shows how far he runs each day for 4 days. Each lap is 400 meters.

Day of Week	Laps Run
Monday	$1\frac{1}{4}$
Tuesday	$1\frac{3}{4}$
Wednesday	$1\frac{5}{8}$
Thursday	$2\frac{1}{2}$

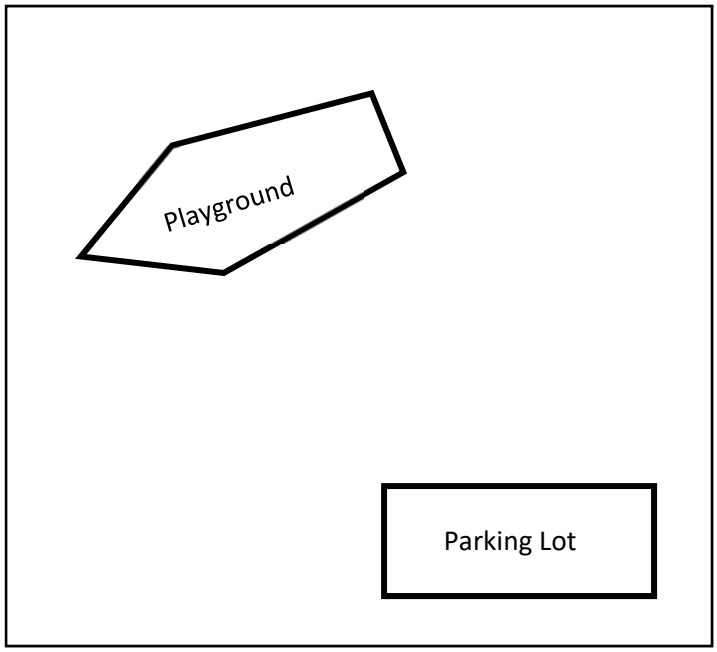
How many laps should he run on Friday?

3. A landscape designer is planning the layout of trees in a park.

   - There are two types of trees: elm and pine.
   - Three should be at least 16 total trees but no more than 30.
   - The ratio of elm trees to pine trees will be 3:2.

   Draw a model to show the possible number of each type of tree.

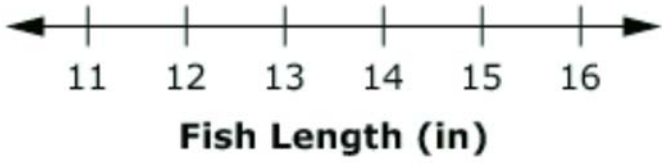
   Key: X = Elm O = Pine



4. The following are the lengths in inches of twelve fish caught one day:

   11, 13, 13, 13, 14, 14, 14, 14, 15, 15, 16, 16

   Create a dot plot to display the data.



5. An equation is shown.

Sarah claims that for any fraction multiplied by $\frac{2}{3}$, n will always be less than $\frac{2}{3}$.

a. Write a number in each box that supports Sarah's claim.
b. Write a number in each box that Does not support Sarah's claim.

A. Supports Sarah's Claim

$$\frac{2}{3} \times \frac{\square}{\square} = n$$

B. Does not support Sarah's Claim

$$\frac{2}{3} \times \frac{\square}{\square} = n$$

6. Kate waters the garden every 3 days and weeds it every 4 days. She does both on April 2nd. What is the next date that she will both water and weed her garden?

APRIL						
Sun	**Mon**	**Tues**	**Wed**	**Thu**	**Fri**	**Sat**
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

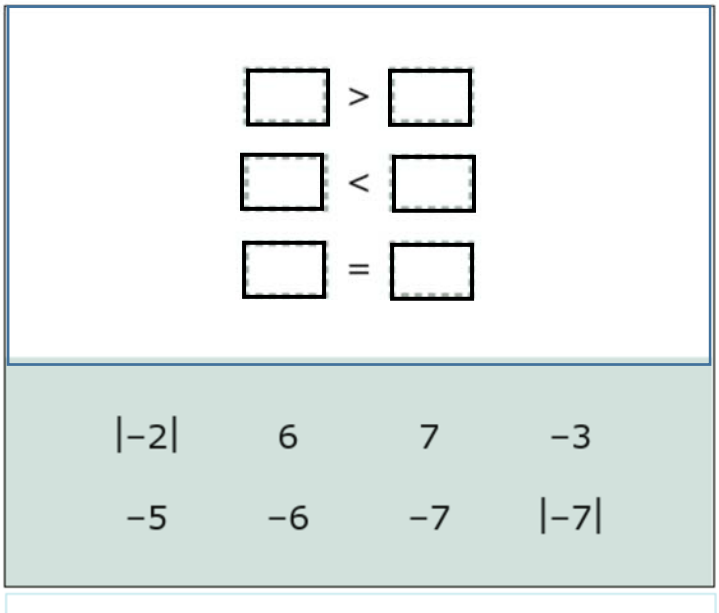
7. Juan has $7\frac{1}{2}$ cups of chopped nuts. He wants to make either banana nut muffins or carrot muffins. The table shows how many cups of nuts are needed for each batch.

Muffin Type	Chopped Nits per Batch
Banana Nut	$\frac{1}{2} cup$
Carrot	$\frac{5}{8} cup$

a. How many batches of banana nut muffins can Juan make if he makes only banana nut muffins?

b. How many batches of carrot muffins can Juan make if he makes only carrot muffins?

8. Write one number in each box to create three true mathematical statements.



9. Robert recorded the temperature outside his house in the table shown.

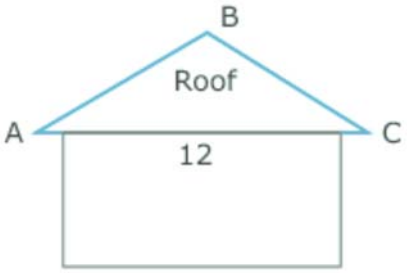
Time	Temperature (F°)
4:00 p.m.	15
6:00 a.m.	-7

Robert claims the difference between the temperatures is 8 degrees.

a. Explain why Robert's claim is incorrect.

b. What is the correct difference in temperatures?

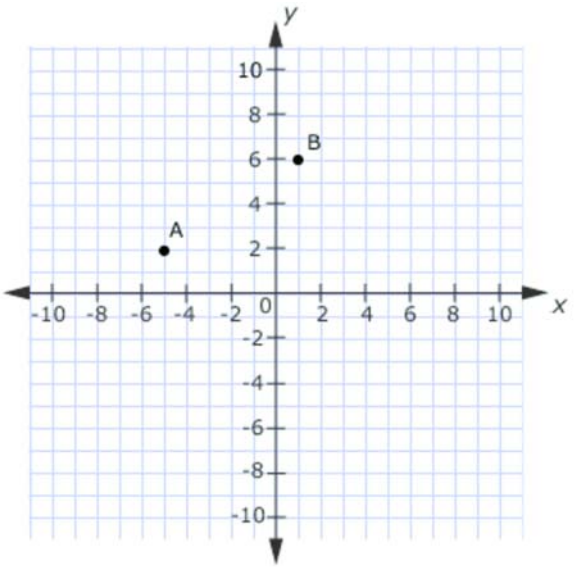
10. Jose is transferring this drawing of a triangular roof to a coordinate plane.



He plots point A at (-5, 2) and point B at (1, 6).

The length of the roof is 12 units in length.

Graph point C and connect the points.



11. A scientist measures the masses of some turtles using digital scales.

- Scale A measures to the nearest tenth of a gram.
- Scale B measures to the nearest hundredth of a gram.

Write the actual masses of the turtles in the boxes to tell whether the two scales' readings will be the same or different.

Same Readings	Different Readings

36.011 g	35.996 g	36.102 g
34.309 g	36.004 g	35.689 g

12. Write the expressions in the table to tell whether each is equivalent to $8(t + 4)$ or $8t + 4$.

    If an expression is not equivalent to either, do not place it in the table.

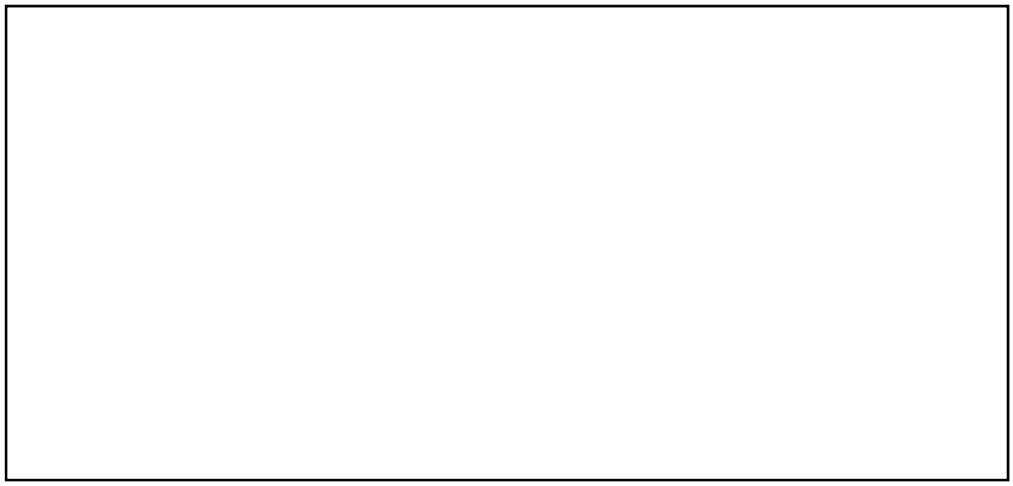
Equivalent to $8(t + 4)$	Equivalent to $8t + 4$

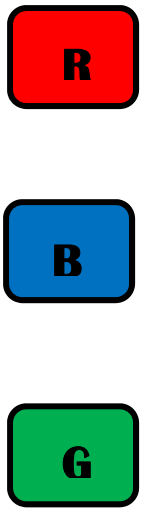
$(8 + t) + (8 + 4)$ $(8 \times t) + (8 \times 4)$ $8t + 12$

$4(2t + 1)$ $8t + 32$ $2(4t + 2)$ $4t + 4 + 4t$

13. An artist is using red, blue, and green tiles to create a mosaic.
    - The ratio for red tiles to total tiles should be 2:5.
    - For every 2 blue tiles, there should be 1 green tile.

    Create a set of tiles the artist could use in the space below.





14. The area and one dimension of a piece of land are given. Write the number into each box that represents the second dimension of the piece of land.

$\frac{1}{2}$ $\frac{1}{3}$ $\frac{2}{3}$ $\frac{2}{5}$ $\frac{3}{4}$ $\frac{3}{5}$ $\frac{4}{5}$

☐ ***mile***

The area of a rectangular piece of land is $\frac{6}{10}$ square mile. One dimension of this piece of land is $\frac{3}{4}$ mile.

☐ ***mile***

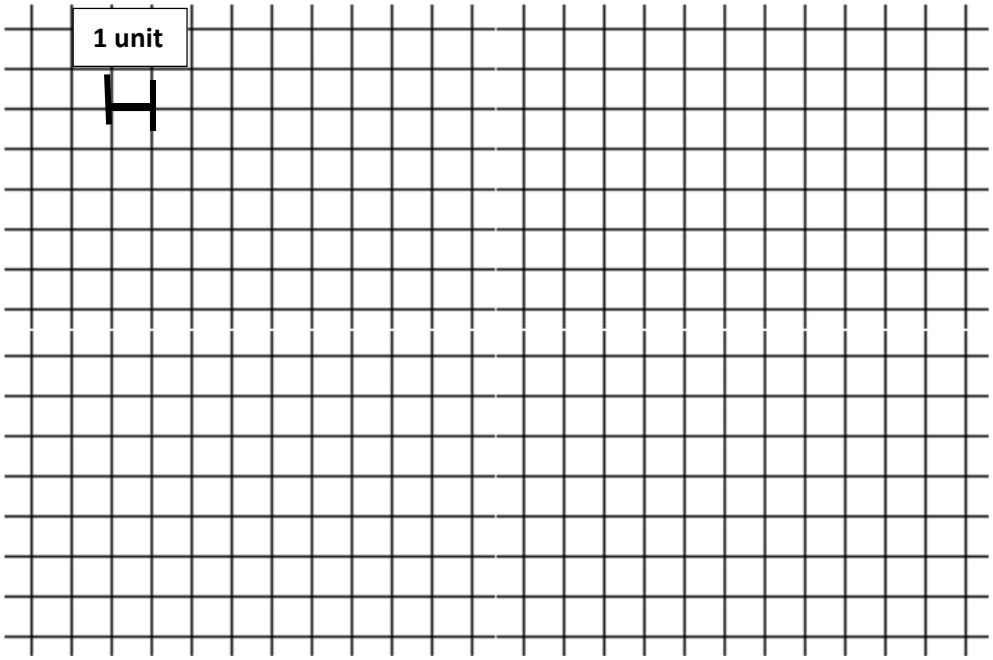
The area of a rectangular piece of land is $\frac{1}{6}$ square mile. One dimension of this piece of land is $\frac{2}{3}$ mile.

☐ ***mile***

The area of a rectangular piece of land is $\frac{4}{25}$ square mile. One dimension of this piece of land is $\frac{2}{5}$ mile.

15. Micah constructs a rectangular prism with a volume of 360 cubic units.
The height of his prism is 10 units.
Micah claims that the base of the prism must be a square.

Draw a base that shows that Micah's claim is incorrect.

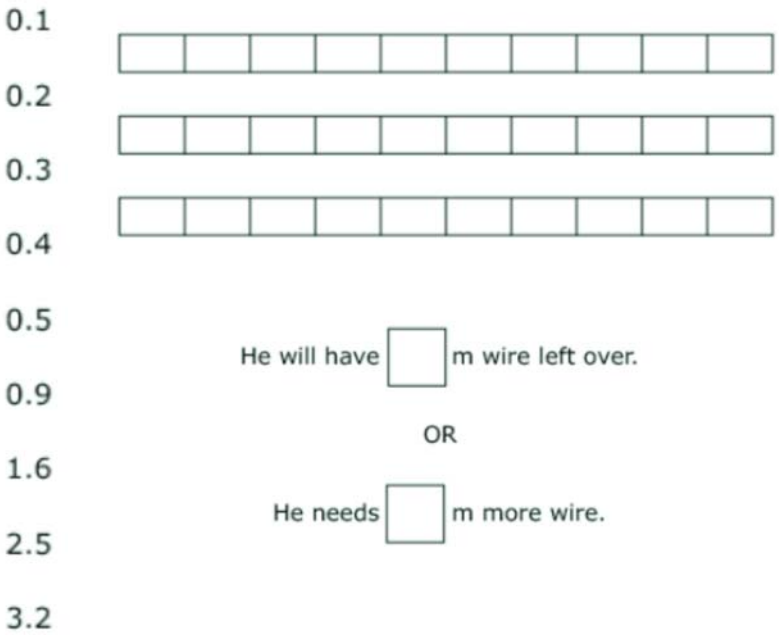


16. Carlos has 2.4 meters of wire.
He needs 1.7 meters for one project and 0.8 meter for antoher project.

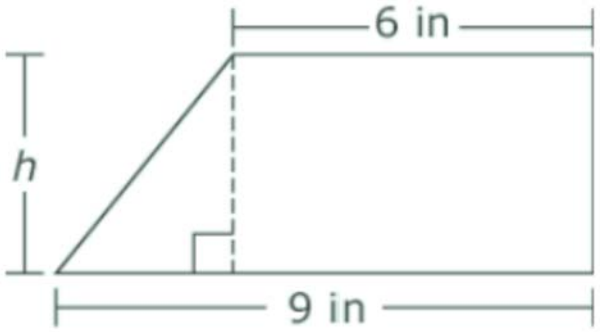
Shade the model to represent the total amount of wire Carlos needs.
Each full row represents 1.0 meter.

Does Carlos have enough wire?

- If so, answer how much he will have left over.
- If not, answer how much more he needs.



17. The trapezoid shown is divided into a right triangle and rectangle.

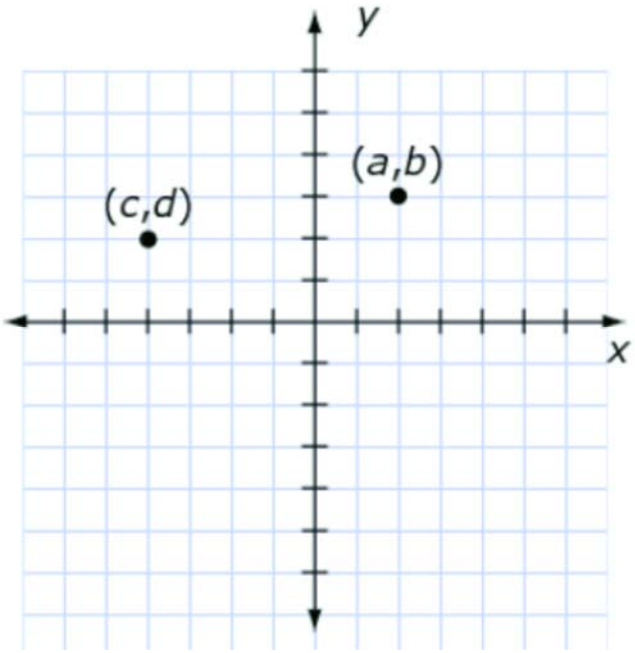


Write and expression that could be used to determine the area of the trapezoid.

18. Two ordered pairs are shown on the coordinate grid.

Graph and label each of these ordered pairs in the correct location.

- (-a, b)
- (a, -b)
- (-c, -d)



19. Ms. Stone buys groceries for a total of $45.32. She now has $32.25 left.

Which equation could be used to find out how much money Ms. Stone had before she bought the groceries?

a. $45.32x = $32.25

b. x - $45.32 = $32.25

c. x + $45.32 = $32.25

d. x + $32.25 = $45.32

20. Several questions are shown.

Which question expects variability in the data related to it? For each question, circle whether or not variability is involved or not.

- How old is the Athlete?

  Variability in Data **No Variability in Data**

- How many pets does each 7th grader have?

  Variability in Data **No Variability in Data**

- How many 7th graders attend our school?

  Variability in Data **No Variability in Data**

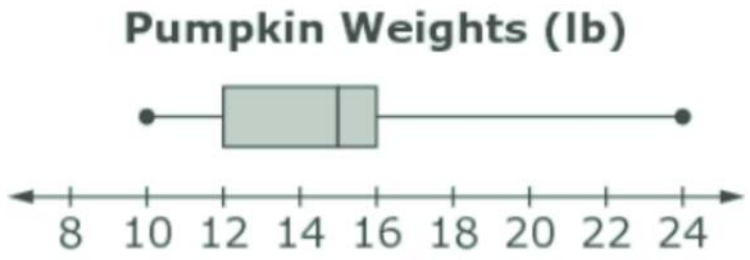
- How old are the animals at the zoo?

  Variability in Data **No Variability in Data**

- How many baseball cards does the boy have?

  Variability in Data **No Variability in Data**

21. Look at the box-0and-whisher plot of pumpkin weights.



What is the median pumpkin weight?

22.

A greeting card company prints 350 cards each hour.

Plot points on the graph to represent how many cards the company prints after 2 and 3 hours.