

Student Name: _____



MIFFLIN MIDDLE SCHOOL'S

Summer Learning Packet

Incoming 8th Graders (you were a 7th grader last year)

READING

Choose **at least one book** to read over the summer that is either **ON your Lexile level or one step above it**. On a separate sheet of paper, answer the following questions about your book. This can be written neatly, typed, or put into a PowerPoint presentation. Be sure to include the **TITLE** and author of each book you read.

6th graders: answer 6 questions

7th graders: answer 7 questions

8th graders: answer 8 questions

You may earn extra credit points for completing any activity of your choice. This is optional.

1. Before Reading: Make a prediction. Take a moment to predict what your book is going to be about.
2. Who are the main characters and what important things have you learned about them? Identify the protagonist and antagonist.
3. Describe or draw the setting **IN DETAIL**. Where in when does the story take place?
4. From what point of view is the story being told and how do you know? (first person or third person).
5. What was your favorite part of the story and why?
6. List one fact and one opinion from the story. Did you agree with the opinion? Explain.
7. Make a personal connection with the story. What is something that you have experienced in the story?
8. Compare the book with another book you have read before in your life. Which one did you like better and why? Please be specific and give details.

Please also get on **A.c.h.i.e.v.e. 3.0.0.0** daily and keep a log of your time on the back of this packet.

*****SOLVE ALL **MATH** PROBLEMS WITHOUT A CALCULATOR
AND SHOW ALL WORK IN PENCIL*****

You'll be responsible for handing in the completed packet with all work shown on the FIRST DAY OF SCHOOL. THIS WILL BE YOUR FIRST GRADE.

The packet is a representation of the types of items you learned in Math last year. It will be GREAT review and keep all of the concepts in your brain so you start your school year feeling confident and knowledgeable.

Please also get on **A.L.E.K.S.** to practice Math on a regular basis. Keep a log of your time and topics learned on the back of this packet.

RATIOS AND PROPORTIONAL REASONING

1. You drive a distance of 242 miles and use 11 gallons of gas. What is the average miles per gallon of your car?

ANSWER: _____

2. You get paid \$20 for 4 hours of work. What is your hourly rate?

ANSWER: _____

3. A volleyball team won 10 of its 16 games. What is the win-loss ratio?

ANSWER: _____

4. The adult - child ratio at a local daycare center is 3 to 16. At the same rate, how many adults are needed for 48 children?

ANSWER: _____

5. 17 out of 20 adults surveyed said they owned a cell phone. Represent the ratio 17 out of 20 as a percent.

ANSWER: _____

6. At a light bulb factory, 3 out of every 1,000 bulbs produced are defective. If 5,000 bulbs are produced, how many would you expect to be defective?

ANSWER: _____

TOTAL SCORE: _____ of 6

7. Decide whether the pair of ratios form a proportion

$$\frac{15}{12} \stackrel{?}{=} \frac{4.5}{3.6}$$

ANSWER: _____

8. Solve the proportion $\frac{y}{10} = \frac{3}{5}$

ANSWER: _____

9. Which is a better buy, 14oz for 98¢ or 8oz for 64¢?

ANSWER: _____

10. Complete the ratio table below and then write the three new equivalent ratios.

72	36	24	12
126			

ANSWER: _____

11. Write 9% as a ratio.

ANSWER: _____

12. A fruit bowl contains 3 apples, 2 bananas, and 5 pears. What is the ratio of pears to apples?

ANSWER: _____

TOTAL SCORE: _____ of 6

THE NUMBER SYSTEM

13. 4 students equally share $\frac{3}{4}$ of a pizza. How much of the pizza does each student get?

ANSWER: _____

14. What is the area of a rectangular parcel of land that is $\frac{7}{8}$ mile by $1\frac{1}{2}$ miles?

ANSWER: _____

15. There was $\frac{2}{3}$ of a pan of lasagna in the refrigerator. Bill and his friends ate half

of what was left. Write a number sentence and draw a model to represent the problem. How much of the pan did they eat?

ANSWER: _____

16. Ms. Pike is bagging snacks for a class trip. She has 72 pretzels rods and 48 pieces of string cheese. What is the largest number of snack bags she can make so that the bags are all the same and there is nothing left over?

ANSWER: _____

17. The beacon on the cell phone tower blinks every 5 seconds and the beacon on the water tower blinks every 8 seconds. The lights blink together. How many seconds will pass before the two lights blink together again?

ANSWER: _____

TOTAL SCORE: _____ **of 5**

Find the sum, difference, product or quotient. Show all work.

18. $37.65 - 4.238$

ANSWER: _____

19. $297.57 \div 6.5$

ANSWER: _____

20. $74,404 \div 356$

ANSWER: _____

21. $417 + 37.95$

ANSWER: _____

22. 12.08×35.2

ANSWER: _____

23. Complete the table.

Fraction	Decimal	Percent
$\frac{4}{5}$		
	0.55	
		35%

TOTAL SCORE: _____ of 6

Find the sum, difference, product or quotient. Show all work.

24. $2\frac{1}{2} - \frac{7}{8} =$

ANSWER: _____

25. $4\frac{3}{6} \times \frac{1}{9} =$

ANSWER: _____

26. $5 \div \frac{3}{10} =$

ANSWER: _____

27. $\frac{5}{6} \div 12 =$

ANSWER: _____

28. What is $\frac{2}{3}$ of 120?

ANSWER: _____

TOTAL SCORE: _____ of 5

EXPRESSIONS AND EQUATIONS

29. Simplify $3^7 \div 9 + 15 \times 4$

ANSWER: _____

30. Evaluate for $x = 7$ $4x + 17$

ANSWER: _____

31. Solve $x - 10 = 23$

ANSWER: _____

32. Simplify $48 - 2 \times 4^3 \div 8 + 13$

ANSWER: _____

33. Write an algebraic expression for “a number p increased by 7”

ANSWER: _____

34. Write an expression equal to $x + x + x + x$

ANSWER: _____

35. Use the distributive property to write an equivalent expression for $4(x - 2)$.

ANSWER: _____

36. Use the distributive property to solve the equation. $3x = 15$

ANSWER: _____

37. Jack has \$25 to spend at the mall. Write an inequality that expresses symbolically the amount of money, m , that Jack can spend.

ANSWER: _____

TOTAL SCORE: _____ of 9

38. *Princess Maria's* carriage travels at 4 miles per hour. Write an equation to find out how many hours a 48 mile trip will take at that rate. Solve the equation.

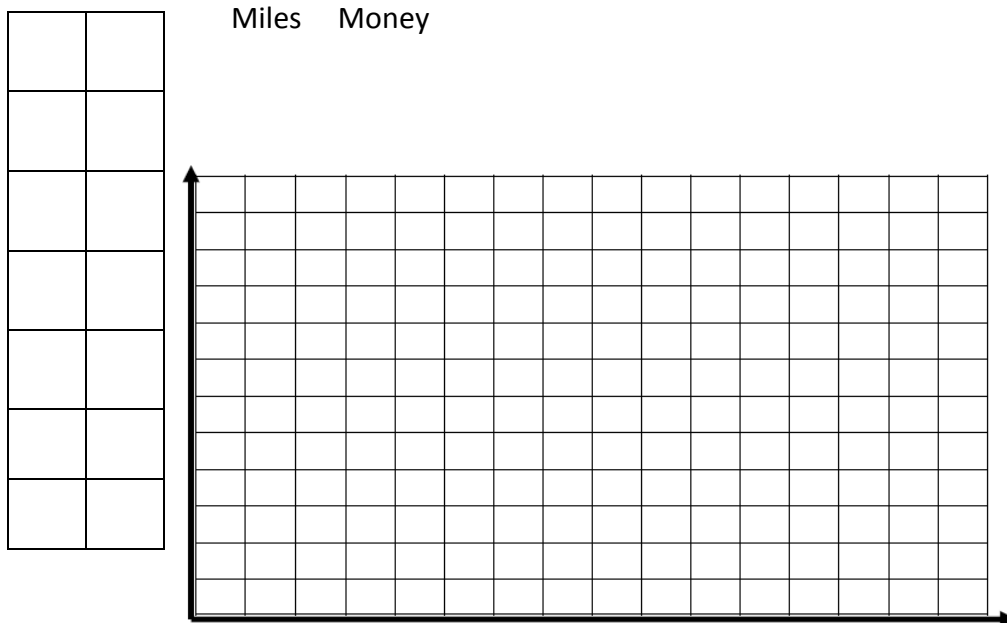
ANSWER: _____

39. Find the width of a rectangle with a length of 18cm and an area of 72cm^2 .

ANSWER: _____

40. Laura has pledges of \$5 for each mile she walks in the Juvenile Diabetes Walkathon fundraiser.

- Use the table below to record the miles walked and the money earned for miles 0 through 6.
- Graph the data on the grid. Remember to select a scale and label the graph.
- Write a rule relating miles walked to money collected.



TOTAL SCORE: _____ of 3

GEOMETRY

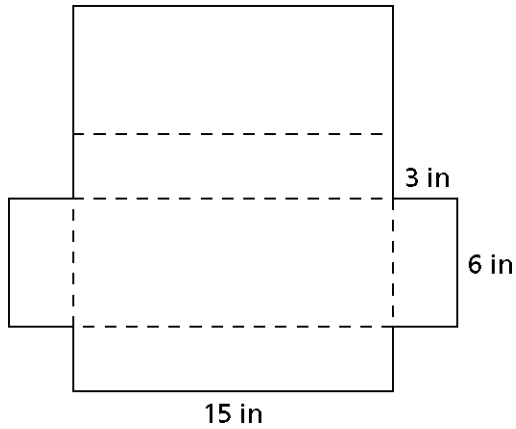
41. This net can be folded on the dashed lines to make a box.

a. What is the surface area of the box?

ANSWER (a): _____

b. What is the volume of the box?

ANSWER (b): _____



42. Name the figure at the right below. _____



- Find the volume of the figure.
- Sketch the net for the figure.
- Use the net to find the surface area of the figure.

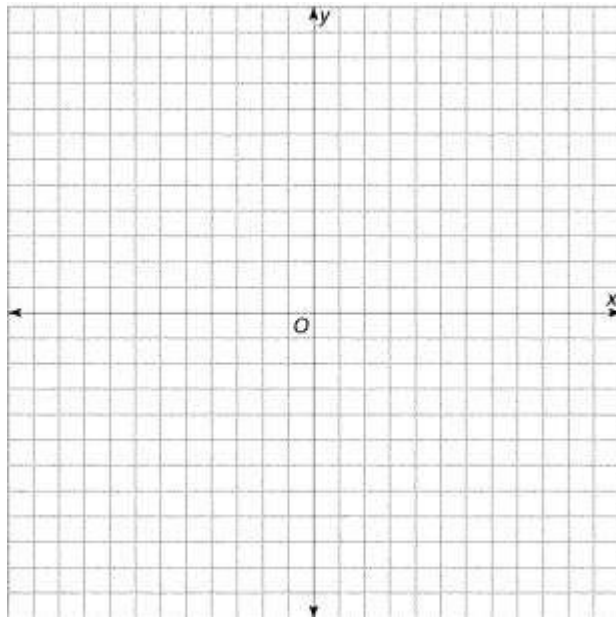


10cm

TOTAL SCORE: _____ of 2

43. Plot the following points on the grid below. $(-5,6)$ $(-5,-3)$ and $(2,6)$.

- Add a fourth point to create a rectangle. Give the coordinates of the new point.
- Find the area and perimeter of the rectangle



44. Find the area of each triangle below. Classify the triangle by its angles.

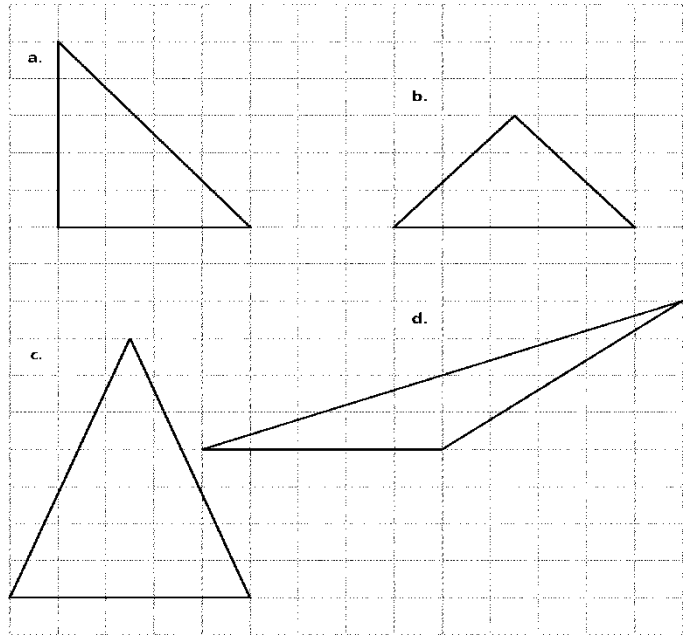
A. _____

B. _____

C. _____

D. _____

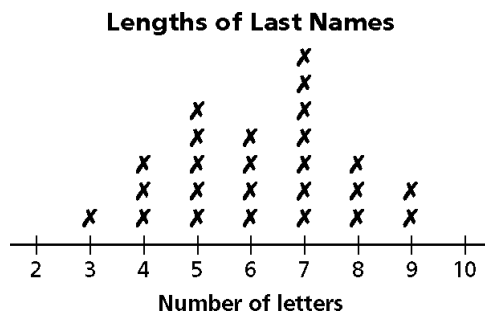
TOTAL SCORE: _____ of 3



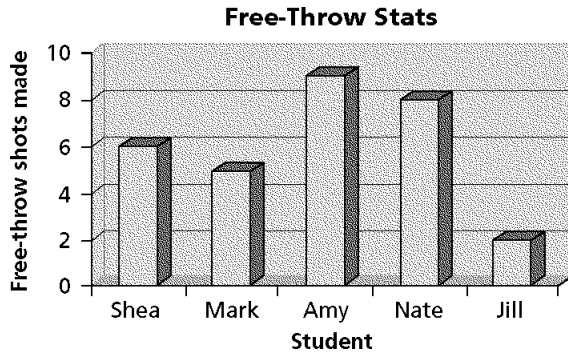
STATISTICS AND PROBABILITY

45. For the distribution pictured below, tell how many people are represented by the data, and identify the mode, median, and range.

Number of people represented _____ mode _____ median _____ range _____



46. Five students competed in a free throw contest. The number of free-throws out of 10 each student made is charted below. Based on the chart below, which of the following statements is false?



- a. Amy made more free throws than Shea or Jill
- b. Mark made more free throws than Jill
- c. Nate made the most free throws
- d. Shea made less free throws than Nate and Amy

TOTAL SCORE: _____ of 2

47. Mike was in charge of collecting contributions for the Food Bank. He received contributions of \$13, \$34, \$26, \$31 and \$28 from five co-workers. Find the median value of these contributions.

ANSWER: _____

48. Thirteen bowlers were asked what their score was on their last game. The scores are shown below.

190, 154, 150, 194, 182, 170, 190, 151, 190, 170, 178, 161, 180

Find the range of the bowlers' scores.

ANSWER: _____

49. The following data shows the high temperatures for a week in May in Michigan. Write the 5-number summary (minimum, first quartile, median, third quartile, and maximum) and then represent the data with a **boxplot**.

Day	Temp
Sun	66° F
Mon	67° F
Tue	71° F
Wed	68° F
Thurs	62° F
Fri	59° F
Sat	62° F

Minimum =

1st Quartile =

Median =

3rd Quartile =

Maximum=

TOTAL SCORE: _____ of 3