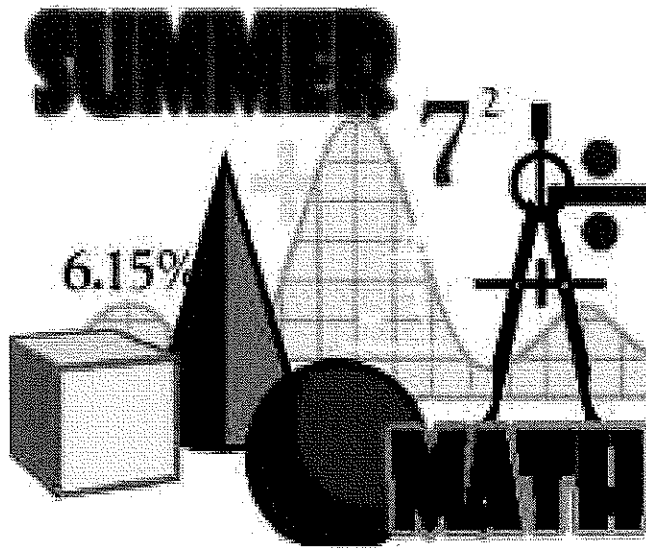


7th Grade Summer Math Packet 2025



6th Grade Math Teacher Name _____

Favorite Math Skill _____

What you look forward to learning in 7th Grade

****Packet must be turned in the first day of school!!****

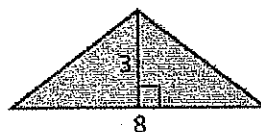
****Must show all work to receive credit!!****

Simplify the expression. Identify the properties used.

1. $4(x - 3)$

2. $(3 \cdot x) \cdot 7$

3. Use a formula to find the area of the figure.



4. Tickets to a basketball game cost \$4 for adults and \$2 for children. Write an expression that gives the total cost for a adults and c children to attend the game. What is the total cost for a family of 2 adults and 3 children to attend the game?

Perform the indicated operation.

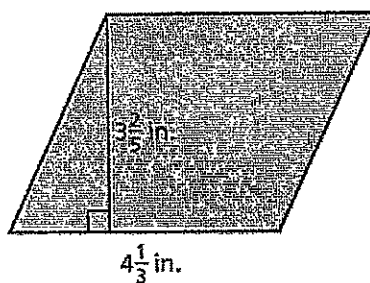
5. $\frac{7}{9} \times \frac{6}{5}$

6. $2\frac{1}{4} \div \frac{3}{8}$

7. 0.35×1.2

8. $0.25 \overline{)7.38}$

9. Find the area of the parallelogram.



Evaluate the expression.

10. $6 + 9 \div 3$

11. $5^2 - 4 \times 2$

12. $(4 - 2)^3 - 2(3 + 1)$

13. $15 + 3(6 \div 2) - 4^2$

- 14.** A recipe for a batch of 3 dozen chocolate chip cookies calls for 3 cups of flour, 1 cup of sugar, and 2 cups of chocolate chips. How much of each ingredient should be used to make 2 dozen cookies?

- 15.** Find the area of the polygon with vertices of $A(0, 1)$, $B(0, 5)$, $C(4, 5)$, and $D(6, 1)$.

- 16.** The ages of people on a jury are 41, 45, 39, 56, 48, 45, 42, 34, 47, 62, 35, and 58. Make a stem-and-leaf plot of the data.

Order the integers from least to greatest.

17. 7, 3, -2, -4, 5

18. -5, -1, 3, 0, -3

19. A twelve-pack of juice costs \$4.20. An eighteen-pack costs \$5.40. Which is the better buy?

Write the fraction or mixed number and a percent.

20. $\frac{3}{8}$

21. $\frac{6}{5}$

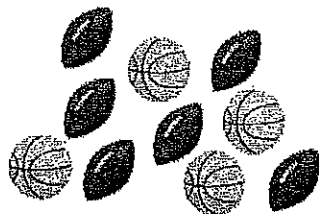
22. $3\frac{1}{4}$

23. Chris, Mary Beth, and Allison are discussing the number of oranges grown in Florida. Chris says that approximately 14.6% of the world's oranges are grown in Florida, Mary Beth says that 292 out of every 2000 oranges are grown in Florida, and Allison says that 0.146 of the world's oranges are grown in Florida. Are they in agreement? Explain your reasoning.

24. How many vertices does a triangular prism have?

25. A pizza shop offers 30% off the price of a large pizza every Tuesday night. If the regular price is \$25, what is the discounted price?

26. Write the ratio of basketballs to footballs. Explain what the ratio means.



27. You run 6 miles in 1 hour. At this rate, how long will it take you to run a marathon (approximately 26 miles)?

28. Determine the mean, median, mode(s), IQR, and range for the data.

3, 8, 6, 6, 4, 6, 9, 9, 12

29. Katie makes 70% of her shots from the free-throw line. Can you determine how many consecutive free-throws she must make in order to increase her percentage to 75%? Explain.

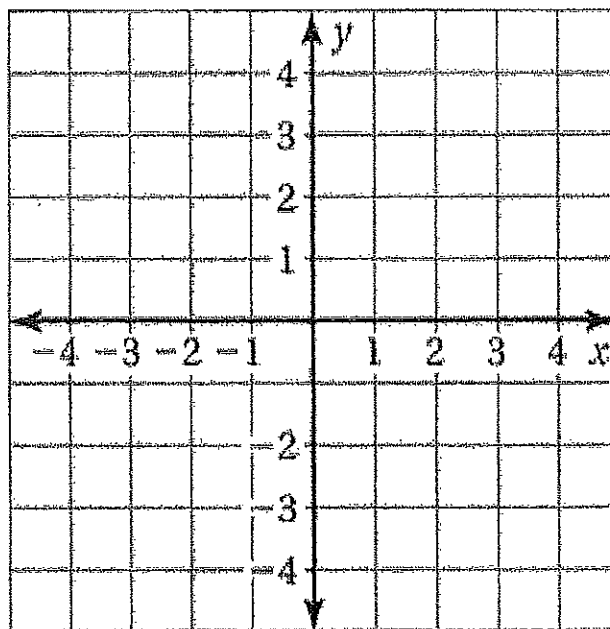
Plot the ordered pair in the coordinate plane.

30. $(3, -4)$

31. $(-4, 2)$

32. $(-2, 0)$

33. $(-3, -3)$



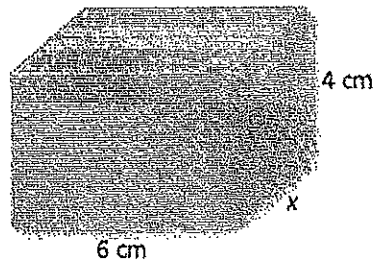
Solve the equation.

34. $s + 3 = 13$

35. $4c = 24$

36. A farmer builds a fence to enclose a rectangular pasture. He uses 160 feet of fence. Find the total area of the pasture if it is 50 feet long.

37. Write and solve an equation to find the width of the box if its volume is 96 cubic centimeters. Then find its surface area.

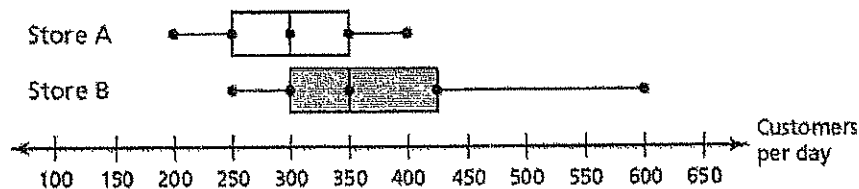


38. The prices of backpacks at a store are \$22, \$16, \$39, \$35, \$19, \$34, \$20, and \$26. Find the mean absolute deviation of the prices.

Write the word sentence as an inequality.

39. A number t is less than 7. 40. A number m is at least -3 .

Use the box-and-whisker plot to answer the question.



41. How often does Store A have 300 or less customers per day?

42. Which store has more customers?

Find the GCF of the numbers.

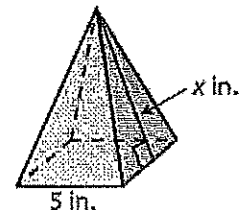
43. 30, 105

44. 84, 90

45. Find the prime factorization of 108

46. You have piano lessons every seventh day and cooking lessons every fourth day. Today you have both lessons. In how many days will you have both lessons on the same day again?

47. The surface area of a square pyramid is 95 square inches. The side length of the base is 5 inches. What is the value of x ?



Find the missing values in the ratio table.

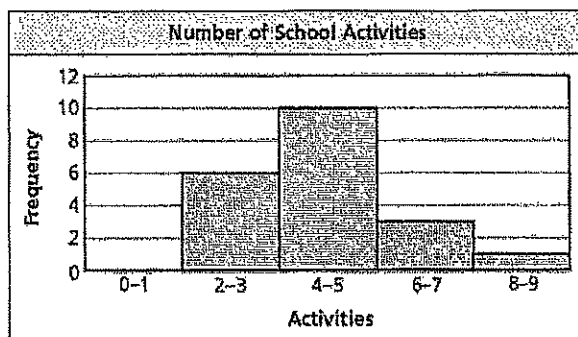
48.

| | | | |
|----------|----|---|-----|
| Teachers | 2 | 3 | |
| Students | 24 | | 120 |

49.

| | | | |
|--------|----|----|---|
| Cups | 52 | 36 | |
| Quarts | 13 | | 5 |

Use the histogram that shows the number of school activities that students are involved in during the year.



50. Which interval contains the fewest data values? _____

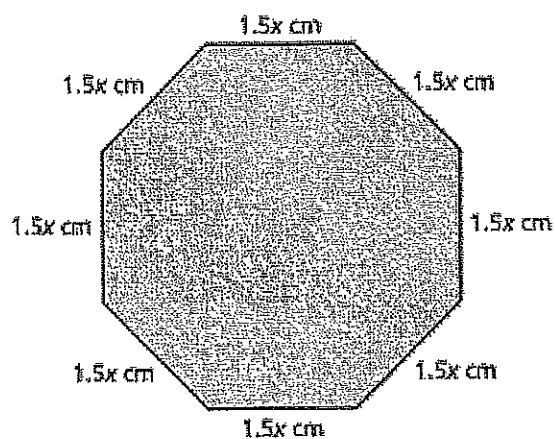
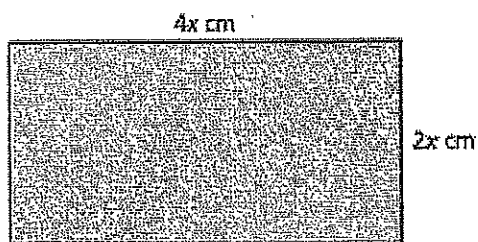
51. How many students are there? _____

52. Determine the percent of students that are involved in at least 4 or 5 activities.

Performance Tasks

Expressions and Equations

Use the rectangle and octagon below.

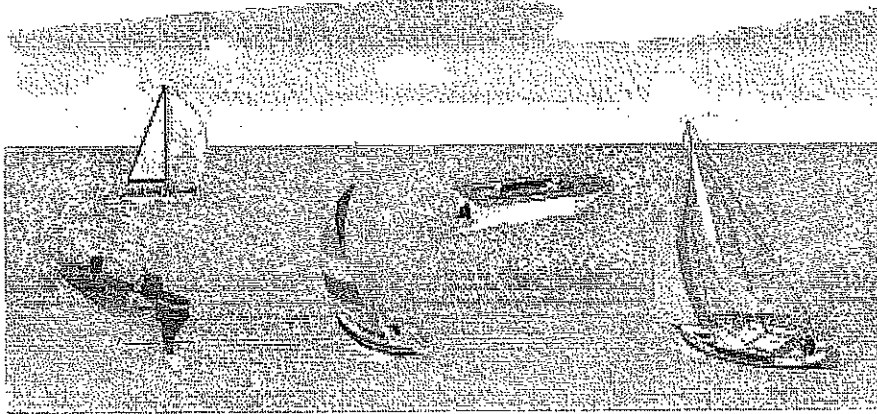


1. Write an expression for the perimeter of each figure.
2. Complete the table. What do you notice?

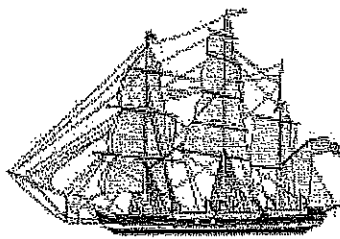
| x | Perimeter of rectangle | Perimeter of octagon |
|-----|------------------------|----------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |

Ratios and Proportions

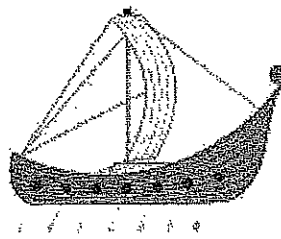
1. The numbers of sailboats and motorboats in a bay are shown.



- a. Write the ratio of motorboats to sailboats in three ways. Explain what the ratios mean.
- b. Four additional motorboats enter the bay. How many additional sailboats must also enter the bay for the ratio to remain the same?
2. The ratio of the number of galleons to the number of galleys in the Spanish Armada was 5 : 1. What missing information could be used to find the total number of galleons and galleys in the Spanish Armada? Explain.



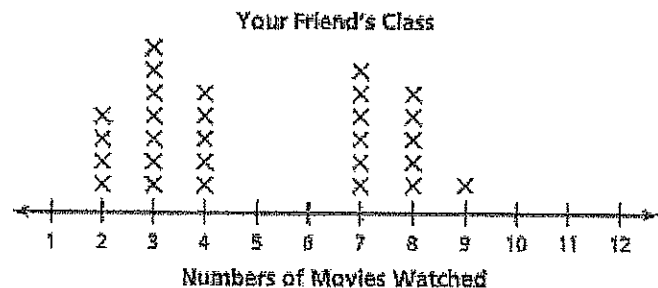
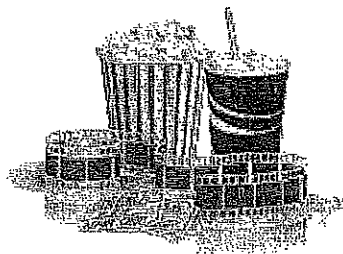
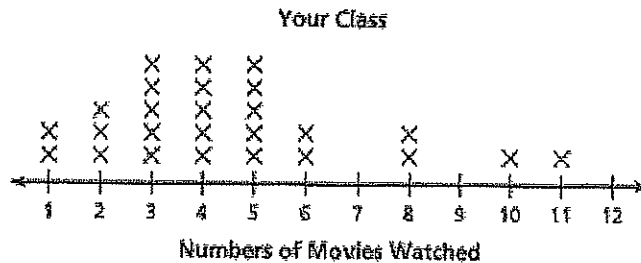
Galleon: propelled by sails



Galley: propelled by rowing

Probability and Statistics

You want to know whether students in your class or your friend's class watch more movies every month. The line plots show the number of movies each student in your class and each student in your friend's class watched during the past month.



1. Compare the mean, median, and mode of the classes.
2. Which set of data do you think is more spread out? Explain.
3. Describe the distribution of the data for each class.
4. Overall, which students do you think watch more movies each month, your class or your friend's class? Explain your reasoning.

