Summer Math Practice

Dear Students and Families,

As we head into summer, we want to encourage all students to continue practicing their math skills to stay sharp and confident for the upcoming school year. The enclosed summer math packet has been carefully designed to help reinforce key concepts we've learned this year while also preparing students for what's ahead.

Completing this packet will help prevent the "summer slide," where important skills can fade without practice. The goal is not to rush, but to work thoughtfully and consistently. I recommend setting aside a small amount of time each week to complete a portion of the packet. This approach helps build strong habits and reduces stress.

Students should show their work whenever possible and try their best on each problem. It's okay if some questions feel challenging—that's part of learning! Students can review notes from the school year, watch videos, use online resources, or ask for help from a family member.

The completed packet will be due at the beginning of the next school year and may be used as part of a review or assessment. More importantly, it will help students return to school feeling prepared and confident.

Thank you for your support in helping make math a part of your summer routine. I hope you all have a fun, relaxing, and safe summer!

Kindly,
Kaylie Pilla
Middle School Math Teacher

Name _____ Date _____

Rising Pre-Algebra Summer Math Work

1. Write $13 \cdot 13 \cdot 13 \cdot 13 \cdot 13 \cdot 13$ as a power.

2. Find the value of 5^5.

3. Evaluate $7 - 9(17 + 7) \div 6^2$.

4. Find the GCF of 56 and 88.

5. Find the LCM of 12 and 9.

6. A mug is $\frac{1}{5}$ full. The mug contains $\frac{3}{8}$ of a cup of water. Find the capacity of the mug. Write the answer as a fraction or mixed number in simplest form.

7. Find $1\frac{3}{4} \div 1\frac{1}{6}$. Write the answer in simplest form.

8. Evaluate $24.891 + 6.588 - 16.965$. Write the answer as a decimal.

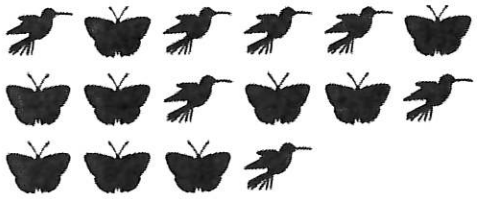
9. Find 6.81×8.82. Write the answer as a decimal.

10. You make 12 equal payments. You pay a total of \$2148. How much is each payment?

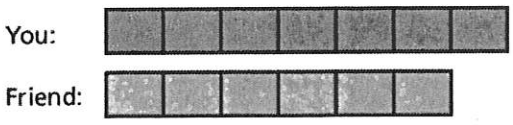
11. Find $2705 \div 250$. Write the answer as a mixed number in simplest form.

12. Find $0.442 \div 0.34$. Write the answer as a decimal.

13. What is the ratio of butterflies to birds?



14. The tape diagram represents the ratio of your monthly allowance to your friend's monthly allowance. The monthly allowances total \$156. How much is each allowance?



15. A recipe uses 7 parts of milk for every 5 parts of sugar. Complete the ratio table. How much sugar do you use when you use 28 cups of milk?

Milk (cups)	7	14		28
Sugar (cups)	5		15	

16. Soup A has 8 grams of sodium in 10 cups. Soup B has 7 grams of sodium in 14 cups. Which soup has more sodium per cup?

17. Represent the ratio relationship using a graph.

Time (minutes)	10	20	30	40
Distance (miles)	5	10	15	20

18. You travel 177 miles in 3 hours. Find the unit rate.

19. You earn $28 for washing 7 cars. How much do you earn for washing 6 cars?

20. How many yards are in 6 feet?

21. Write $\frac{43}{50}$ as a percent.

22. 40% of what number is 26?

23. Identify the terms, coefficients, and constants in the expression $15x + 12$.

24. Evaluate $y^2 - 3$ when $y = 2$.

25. Write the phrase, "13 less than a number p," as an expression.

26. Simplify the expression $6 + (4 + x)$.

27. Use the Distributive Property to simplify the expression $7(5x - 6)$.

28. You purchase z items for \$6 each. The total cost is \$36. Write an equation that you can use to find z.

29. Tell whether $p = 99$ is a solution of $p \div 9 = 11$.

Solve the equation.

30. $x + 11 = 15$

31. $9y = 81$

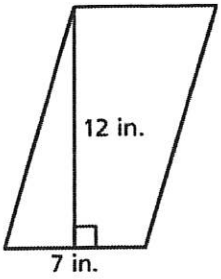
32. The equation $c = 5t$ represents the cost c (in dollars) of t tickets for a play. Identify the independent and dependent variables.

33. You have \$10 and earn \$0.25 for each cup of orange juice you sell. Write an equation that represents the total amount A (in dollars) you have after selling j cups of orange juice.

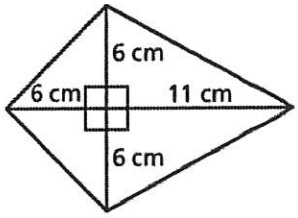
34. Use a graph to show the relationship between the time and the distance traveled.

Time (hours), *t*	1	6
Distance (miles), *d*	3	18

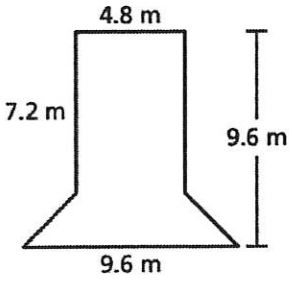
Find the area of the figure.



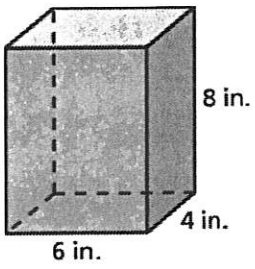
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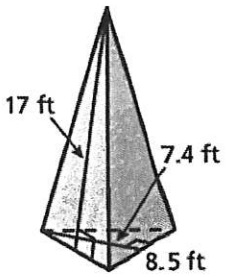
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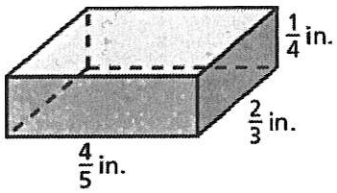
38. Find the surface area.



39. Find the surface area.



40. Find the volume.



41. Write a positive or negative integer that represents the situation, "You have a debt of $36."

42. Which temperature is colder, $-164°C$ or $-165°C$? Explain.

Graph the number and its opposite on a number line.

43. 4

44. 3.2

Complete the statement using <, >, or =.

45. $-2\frac{1}{4}$ ____ $-2\frac{1}{2}$

46. -4.4 ____ -3.2

47. Find $|-87|$.

48. Three account balances are given. Fill in each blank with $<, >$, or $=$.

a. balance $= -\$27$

debt ____ $\$27$

b. balance $> -\$27$

debt ____ $\$27$

c. balance $< -\$27$

debt ____ $\$27$

52. Write the word sentence, "A number p is at most 4," as an inequality.

53. Tell whether $x = 3$ is a solution of $\frac{x}{3} \leq 2$.

Graph the solution of the inequality on a number line.

54. $x - 1 < 3$

55. $\frac{7}{6}x > 7$

56. Is the question, "How many hours do sixth graders spend studying each night?" a statistical question?

58. A group of five sixth-graders measure and record their heights. The heights (in inches) are 53, 54, 63, 55, and 55. Find the mean and the median of the heights.

59. Find the interquartile range of the data: 70, 53, 62, 60, 54, 60, 67, 65, 67

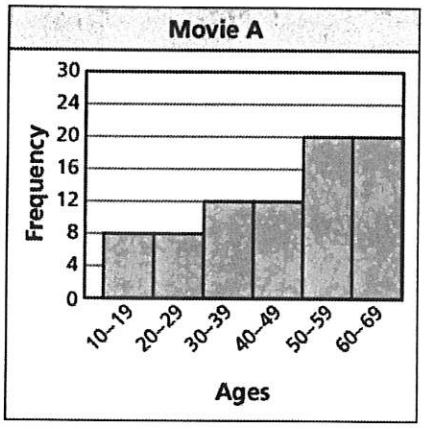
60. Identify the outlier in the data set: 90, 94, 99, 96, 94, 99, 90, 94, 97, 90, 92, 144

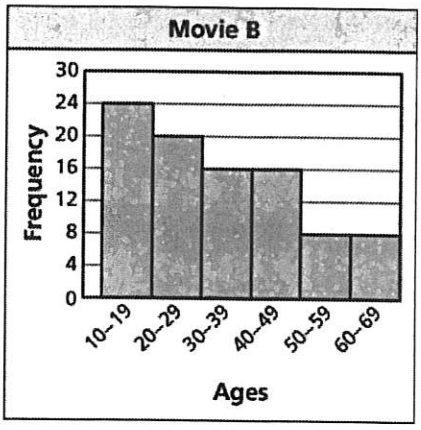
61. The data set 2, 3, 3, 4, 5, 6, 7, 8, 9, 9 shows the numbers of hours students study the week before a test. Find and interpret the mean absolute deviation of the data set.

63. The frequency table shows the scores of students on a test. Display the data in a histogram.

Points	76–80	81–85	86–90	91–	96–
Frequency	4	2	7	5	8

64. The histograms show the ages of people watching two movies in a theater.





a. Describe the shape of each distribution.

b. Which movie has older viewers?

Answers

1. 13^6

2. 3125

3. 1

4. 8

5. 36

6. $1\frac{7}{8}$ c

7. $1\frac{1}{2}$

8. 14.514

9. 60.0642

10. $179

11. $10\frac{41}{50}$

12. 1.3

13. 9 : 7

14. yours: $84; your friend's: $72

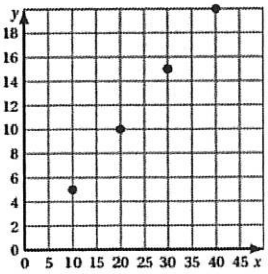
15.

Milk (cups)	7	14	21	28
Sugar (cups)	5	10	15	20

20 c

16. Soup A

17.



18. 59 miles per hour

19. $24 **20.** 2 **21.** 86% **22.** 65

23. Terms: $15x$, 12
Coefficient: 15
Constant: 12

24. 1 **25.** $p - 13$ **26.** $x + 10$

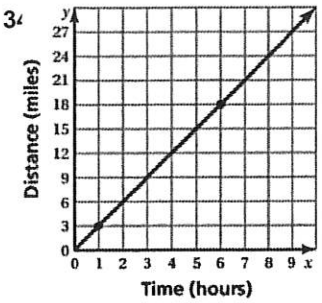
27. $35x - 42$ **28.** $6z = 36$ **29.** yes

30. $x = 4$ **31.** $y = 9$

32. independent variable: t; dependent variable: c

33. $A = 10 + 0.25j$

34.

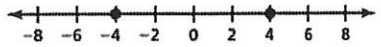


35. 84 in.^{2} **36.** 102 cm^2 **37.** 51.84 m^2

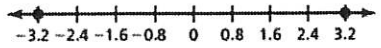
38. 208 in.^{2} **39.** 248.2 ft^2 **40.** $\frac{2}{15}$ in.^{3}

41. -36 **42.** -165°C

43.



44.



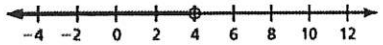
45. > **46.** < **47.** 87

48. **a.** = **b.** < **c.** >

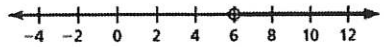
52. $p \leq 4$

53. yes

54.



55.



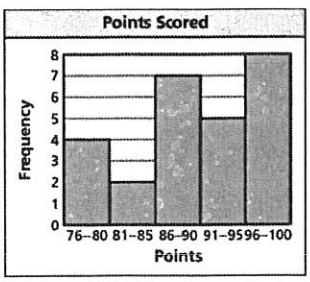
56. yes

58. mean = 56; median = 55

59. 10 **60.** 144

61. 2.2 h; The values differ from the mean by an average of 2.2 hours.

63.



64. **a.** Movie A: skewed left; Movie B: skewed right.
b. Movie A

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Name: _____ Class Code: 78KSBZXJ

Rising Pre-Algebra Summer Course Work Tracker

Name of Assignment	Type	Record	I learned...
	☐ Video ☐ Practice ☐ Quiz ☐ Unit test	Completed ☐ Yes ☐ No	
	☐ Video ☐ Practice ☐ Quiz ☐ Unit test	Completed ☐ Yes ☐ No	
	☐ Video ☐ Practice ☐ Quiz ☐ Unit test	Completed ☐ Yes ☐ No	
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Name of Assignment	Category	Record	Notes
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