H.W. Mountz 7th grade Summer Packet 2020
Completed 6th grade Math or 6th Accelerated
The packet should be completed **without** a calculator

Name _____

Due: Wednesday, September 9th
Show all work
This will be counted as your first quiz grade

For # 1 - 4, Find the value of each expression

1. $3963 + 2379$

2. $207 \div 23$

3. $11 \times 8 - 6 \div 2$

4. $6 + 4(11 - 2) \div 3^2$

5. Write the prime factorization of 46

6. You gave 16 yellow beads, 20 red beads and 24 orange beads to make identical bracelets. What is the greatest number of bracelets that you can make using all the beads?

7. A bag contains equal numbers of green and blue marbles. You can divide all the green marbles into groups of 12 and all the blue marbles into groups of 16. What is the least number of each color of marble that can be in the bag?

For numbers 8 - 14 , add, subtract, multiply or divide.

8. $6.329 + 14.38$

9. $85.8 - 2.354$

10. 0.62×17

11. $1.8 \div 0.03$

12. $\frac{9}{16} \times \frac{2}{3}$

13. $10 \div \frac{2}{3}$

14. $8\frac{2}{3} \div 2\frac{7}{8}$

15. A grocery store sells grapes for $1.99 per pound. You buy 2.34 pounds of the grapes. How much do you pay?

16. Write the phrase as an expression

Twice a number x more than 5

For numbers 17 - 19 , simplify the expression.

17. $4(x + 2) - 6$

18. $x + 3x + 4x$

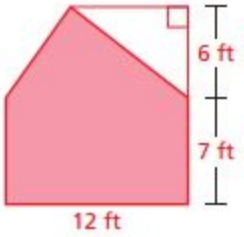
19. $4s - 2 - 2s + 7$

20. Factor the expression using the GCF

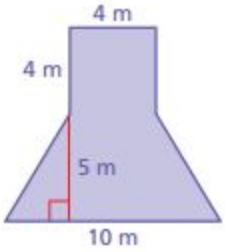
$$15x - 20$$

For number 21 - 23 , find the area of the figure.

21.



22.



23.

24. Find the perimeter of the polygon with given vertices

W(2, 8), X (2, 16), Y (8, 16), Z (8, 8)

25. Write the unit rate for $54.00 for 3 tickets

26. What is 80% of 90.

27. 34 is 40% of what number?

28. A 48-fluid-ounce container of orange juice costs $2.40. A 60-fluid-ounce container of orange juice costs $3.60. Which is the better buy?

29. Order the integers from least to greatest

$0,\ -2,\ 3,\ 1,\ -4$

For numbers 30 - 33, Complete with <, > or =.

30. $-\frac{2}{3}$ $-\frac{3}{5}$

31. 1.55 -2.46

32. $|-6|$ 3

33. 2.5 $|-2.5|$

For # 34 - 37, Solve each equation.

34. $15 = 7 + x$

35. $x - 6 = 16$

36. $5x = 70$

37. $\frac{6x}{7} = 30$

For # 38 - 40, Solve and graph the inequality.

38. $x - 3 < 7$

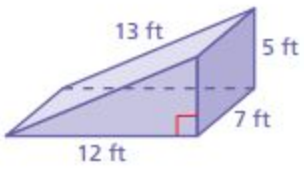
39. $\frac{4}{3}b \geq 12$

40. Each ticket to a school dance is $4. The total amount collected in ticket sales is $332. Write and solve an equation to find the number of students attending the dance.

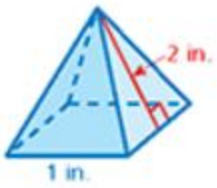
41. A hurricane has wind speeds that are greater than or equal to 74 miles per hour. Write an inequality to represent the possible wind speeds during a hurricane.

For # 42 and 43, find the surface area.

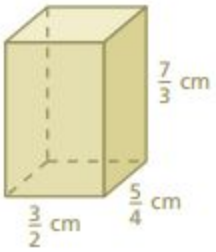
42.



43.



44. Find the volume of the prism.



45. Find the range, mean, median, and mode(s) of the data

4, 5, 7, 5, 9, 9, 10, 6

46. Find the median, first quartile, third quartile, and interquartile range of the data.

32, 58, 19, 36, 44, 57, 11, 26, 74

47. Make a stem-and-leaf plot of the data.

Quiz Scores (%)			
96	88	80	72
80	94	92	100
76	80	68	90

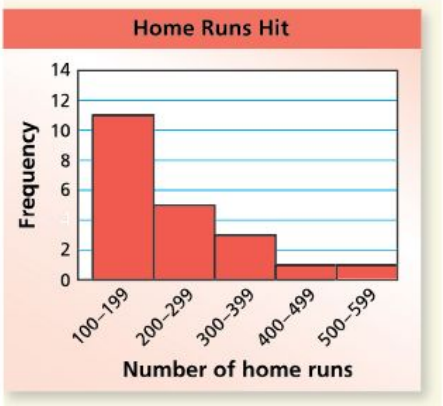
48. Make a box-and-whisker plot for the data.

Ages (in years) of dogs at a vet's office: 1, 3, 5, 11, 5, 7, 5, 9

49. Display the data in a histogram.

Minutes Studied	
Minutes	Frequency
0–19	5
20–39	9
40–59	12
60–79	3

50. Describe the shape of the distribution.



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Complete #51 - 60 Only if you completed 6th grade accelerated math

51. Evaluate the expression when x = 5, y = −3, and z = −2.

$\frac{x-5z}{y}$

For # 52 - 54 , evaluate each expression

52. $-6 + (-11)$

53. $2 - (-9)$

54. $-9 \cdot 2$

For #55 - , Add, subtract, multiply or divide. Keep fractions in simplest form.

55. $-\frac{4}{9} + \left(-\frac{23}{18}\right)$

56. $\frac{17}{12} - \left(-\frac{1}{8}\right)$

57. $-4.4 \times (-6.02)$

58. $-1\frac{5}{6} \div 4\frac{1}{6}$

59. A cell phone company charges a monthly fee plus $0.25 for each text message. The monthly fee is $30.00 and you owe $59.50. **Write and solve** an equation to find how many text messages did you have?

60. A basketball game has four quarters. The length of a game is 32 minutes. You play the entire game except for $4\frac{1}{2}$ minutes. **Write and solve** an equation to find the mean time you play per quarter.