

**Western Middle School
Summer Math Packet
For Students Entering 6th Grade**

Name: _____

Please complete this entire math packet and bring it with you to your first day of sixth grade math. All students are required to complete a summer mathematics assignment. This assignment includes topics that students should know prior to entering seventh grade. Remember to keep this in a safe place!

Grade 6 Summer Math Packet

Name: _____

1. Which means the same as the number 5236?

- a. $5000 + 2000 + 30 = 6$
- b. $5000 + 200 + 30 + 6$
- c. $500 + 200 + 30 + 6$
- d. $500 + 20 + 30 + 6$

2. Compare 61,747 _____ 502,746

- a. $<$
- b. $=$
- c. $>$
- d. Not given

3. Which is a prime number:

- a. 9
- b. 15
- c. 16
- d. 17

4. Choose the example whose product is even.

- a. 29×3
- b. 43×7
- c. 29×4
- d. 81×5

5. Choose the decimal for $8 \frac{17}{100}$

- a. 817.100
- b. 81.7
- c. 8.171
- d. 8.17

6. Compare. $\frac{2}{3}$ _____ $\frac{1}{2}$

- a. $<$
- b. $=$
- c. $>$
- d. not given

7. What are two common multiples of 3 and 5?

- a. 5, 15
- b. 15, 30
- c. 25, 35
- d. 33, 45

8. What are the first four multiples of 5?

- a. 5,15,20,30
- b. 0,5,15,25
- c. 0,5,10,20
- d. 0,5,10,15

9. $1/5 =$

- a. 0.1
- b. 0.4
- c. 0.2
- d. 0.5

10. Sandy, Maria, Tom and Brian play four different instruments – flute, – trumpet, drums and violin – in the school orchestra. Sandy sits next to the trumpet player. Neither Maria nor Brian plays the drums. Tom plays a string instrument. The flute player is a boy. Who plays the trumpet?

- a. Brian
- b. Sandy
- c. Maria
- d. Tom

11. Georgia wrote a computer program that randomly generates numbers from 1 to 100. So far she has gotten the results shown below. What is the likelihood that the next number will be 100?

Results: 13 20 45 77 8 15 62 99 3 54

- a. $1/10$
- b. $1/90$
- c. $1/89$
- d. $1/100$

12. An obtuse triangle has one angle that measures 100 degrees. Which of the following statements about the triangle could be true?
- The triangle is isosceles.
 - A second angle measures 80 degrees.
 - All three sides of the triangle have the same measure.
 - The sum of the measures of the 2nd and 3rd angles equals 100 degrees

13. The Great White Heron National Wildlife Refuge in Florida is 8 miles wide and 40 miles long. What is the perimeter of the refuge?
- 48 miles
 - 96 miles
 - 320 miles
 - 640 miles

14. People living in the United States use about 384,700,000 gallons of oil each day.

This number is about 10,000 less than which of the following numbers?

- 394,700,000
- 384,710,000
- 384,690,000
- 374,700,000

15. In a recent survey, 60,047 people were asked what their favorite type of ice cream was. 17% of the people who responded to the survey said that chocolate was their favorite ice cream.

Which of these numbers is 1,000 more than 60,047?

- 60,147
- 61,047
- 70,047
- 59,047

16. Sam weighed $5\frac{1}{4}$ ounces of sugar.

Which of the following decimal number equals this amount?

- 5.14
- 5.2
- 5.25
- 5.5

17. Which of these sets of numbers shows the numbers in order from greatest to least?

- a. 32,102 30,691 38,490 35,096
- b. 30,691 32,102 35,096 38,490
- c. 38,490 35,096 32,102 30,691
- d. 35,096 30,691 38,490 32,102

18. Vanessa found \$0.37 in change in her coat pocket. She needed \$0.75 to buy a can of soda. Which number sentence could be used to show the amount of money that Vanessa still needs to buy the soda?

- a. $\$0.37 + \$0.75 =$
- b. $\$0.75 + \$0.37 =$
- c. $\$0.37 - \$0.75 =$
- d. $\$0.75 - \$0.37 =$

19. Martha needs to write a story problem to represent the expression $10.69 + 19.51$. Which story problem represents this expression?

- a. Rita and Betty sold lemonade. Rita sold lemonade to 10.69 people and Betty sold lemonade to 19.51 people. How many people did Rita and Betty sell lemonade to in all?
- b. Rita and Betty sold lemonade. Rita sold 10.69 cups and Betty sold 19.51 cups. How many more cups did Betty sell?
- c. Rita and Betty sold lemonade. Rita earned \$10.69 and Betty earned \$19.51. How much money did they earn in all?
- d. Rita and Betty sold lemonade. Rita earned \$10.69 and Betty earned \$19.51. How much more money did Betty earn?

20. $3.45 \times 10 =$

- a. 0.345
- b. 3.45
- c. 34.5
- d. 345

21. $145 \div 100 =$

- a. 14,500
- b. 1450
- c. 14.5
- d. 1.45

22. Solve this problem: $5/9 + 3/5 =$ _____

- a. $1/3$
- b. $17/45$
- c. $4/7$
- d. $8/45$

23. Brian had 15 colored pencils. $2/5$ of the pencils were sharpened. How many pencils were sharpened?

- a. 10
- b. 6
- c. 5
- d. 9

24. According to the 2010 U.S. Census for the state of Connecticut, there were 470,183 people over the age of 65 and 223,344 people under the age of 5 living in the state. Which of the following would be best to find the difference between the numbers of people in these two age groups by rounding to the nearest hundred?

- a. $500,000 - 200,000 = 300,000$
- b. $470,180 - 223,340 = 245,840$
- c. $470,000 - 220,000 = 250,000$
- d. $470,200 - 223,300 = 246,000$

25. Debbie needs 2 scoops of lemonade mix for every quart of water. How many quarts of water does she need for 8 scoops of lemonade mix?

- a. 4
- b. 6
- c. 8
- d. 16

26. If one CD cost \$14.97, how much would 3 CDs cost?

- a. \$44.37
- b. \$44.61
- c. \$44.91
- d. \$45

27. A cake recipe calls for 4 cups of flour and 3 cups of water to make one cake.

Suppose that you decided to increase the recipe to make 2 cakes. How much flour would you need for the recipe if you used 6 cups of water?

- a. 2 cups of flour
- b. 7 cups of flour
- c. 6 cups of flour
- d. 8 cups of flour

28. An outlet mall measures 3 kilometers from one end to the other.

What is this number in millimeters?

- a. 3,000,000
- b. 300,000
- c. 30,000
- d. 3,000

29. MaryAnne's younger brother weighs about 20,000 grams. Which of the following equals that amount?

- a. 20 kilograms
- b. 200 kilograms
- c. 2000 kilograms
- d. 20,000,000 kilograms

30. These are Jason's scores for six math tests: 85, 70, 50, 12, 80, 81.

What is the mean score of Jason's six math tests?

- a. 63
- b. 73
- c. 75
- d. There is no mean.

31. Jackie put a handful of animal crackers in a plastic bag. The bag contained 4 lions, 3 bears, 2 hippos and a giraffe. What is the probability that she will reach into the bag without looking and pick a bear?

- a. 2 out of 9
- b. 3 out of 9
- c. 2 out of 10
- d. 3 out of 10

32. What is the value of x in this equation? $12x = 84$

- a. 6
- b. 72
- c. 7
- d. 8

33. Robert is collecting money for jumping rope in a fundraiser. How much money was pledged in Robert's class if his pledge of \$80 was 25% of the total?

- a. \$20
- b. \$240
- c. \$320
- d. \$400

Open Ended: Please show your work in the space provided

34. At the movie theater, tickets cost \$7.50 each, candy bars cost \$1.75 each, popcorn costs \$4.50 for a small bucket, and soda costs \$2.50 each cup. Louise and Mike plan to go to the movies and want to have something to snack on while there. If they have a total of \$20.00, will they have enough for their plan? Explain your reasoning.

35. Find the missing values in this input-output table. Explain how you know.

Input	Output
1	5
2	9
3	13
4	17
5	
	41
20	

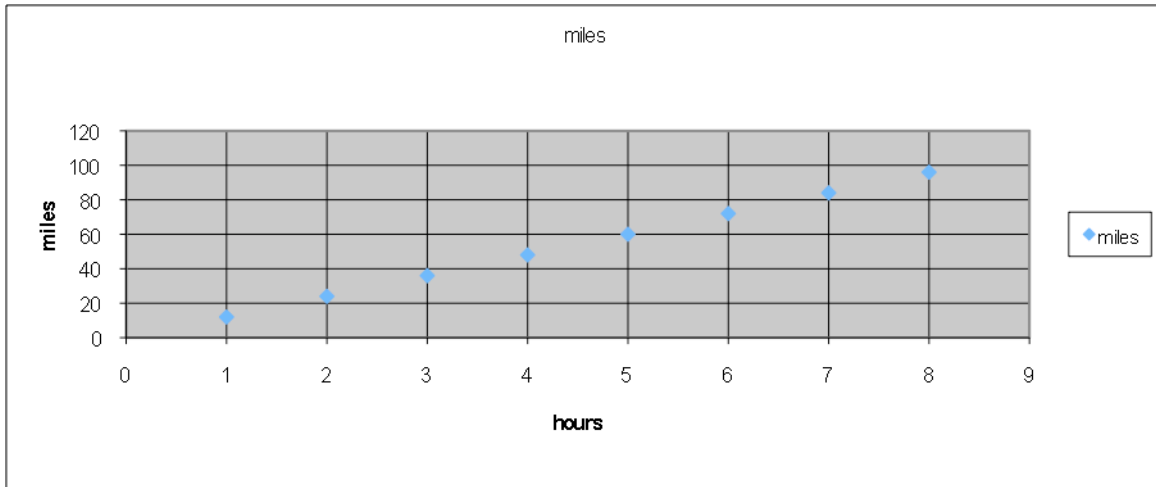
36. List all the dimensions (length and width) of possible rectangles with whole number sides and a perimeter of 20.

Length							
Width							
Area							

a.) Which dimensions give you the greatest area? _____

b.) Which dimensions give you the least area? _____

37. This is a graph of the total miles traveled by a bicycle rider.



a.) How many miles were traveled at 5 hours? _____

b.) At this same rate, how long would it take to go 125 miles? _____

38. These are the ages of all the people at a family picnic:
83,80,63,58,31,32,4,2,27,28,2, 64, 55

a.) Make a stem and leaf plot below of the data (Don't forget your key. For example: 5/6 = 56)

b.) Find the range, median, mode, mean of the ages of the family picnic.

_____ _____ _____ _____
range median mode mean

39. Consider the number 812,763.

Write the number that is:

One greater _____

One less _____

1,000 greater _____

10,000 less _____

40. Write a story problem that can be solved using the following number sentence: $12.39 + 18.43 =$ _____. Please solve the problem after you have written your number sentence.

41. Ricky set a goal to earn \$275 during the summer months. He earned \$54 in June and \$127 in July. How much money did he need to earn in August to meet his goal? Show your work.

42. These numbers follow a pattern. 57, 65, 73, 81, _____
What is the next number in the pattern? Write the number and explain why that number is next.

43. These numbers follow a pattern: 7.75, 7.5, 7.25, 6.75, 6.5 _____ Write the next number in the pattern. What is the next number in the pattern?
