

Summer Math Packet for Students Entering Grade 5 in the fall of 2024

Student's Name \_\_\_\_\_

Welcome to 5th Grade Mathematics! Since you will be taking 5<sup>th</sup> Grade Mathematics after successfully completing 4<sup>th</sup> Grade Mathematics, the 5<sup>th</sup> GRADE PREPARATION PACKET contains review material of the 4<sup>th</sup> grade concepts, skills, and procedures that should be mastered BEFORE entering 5<sup>th</sup> grade in the fall. Essentially, this packet provides a review of the major 4th grade topics.

**A note about Math Facts:** Math Fluency is a necessary component of the grade 5 curriculum. Therefore, upon entering 5th grade, students need to be expertly skilled in their basic multiplication, addition, and subtraction facts. For example:  $5 \times 6 = 30$ ;  $9 \times 8 = 72$ ;  $12 \times 11 = 121$ . Students will be responsible for multiplication facts from  $0 \times 0$  to  $12 \times 12$ . This collection of problems will identify those concepts that you have mastered as well as those you will need to practice and review.

\*\*\*SOLVE THESE PROBLEMS WITHOUT THE USE OF A CALCULATOR AND SHOW ALL WORK\*\*\*

The problems here are very representative of the types of items you will need to have mastered BEFORE 5<sup>th</sup> Grade Math...so we strongly encourage you to include this packet in your summer festivities! Good luck and enjoy!



¡Bienvenidos a Matemáticas de quinto grado! Dado que tomará Matemáticas de quinto grado después de completar con éxito Matemáticas de cuarto grado, el PAQUETE DE PREPARACIÓN DE QUINTO GRADO contiene material de repaso de los conceptos, habilidades y procedimientos de cuarto grado que deben dominarse ANTES de ingresar al quinto grado en el otoño. Básicamente, este paquete proporciona una revisión de los principales temas de 4º grado.

Una nota sobre los hechos matemáticos: la fluidez matemática es un componente necesario del plan de estudios de quinto grado. Por lo tanto, al ingresar al quinto grado, los estudiantes deben ser expertos en las operaciones básicas de multiplicación, suma y resta. Por ejemplo:  $5 \times 6 = 30$ ;  $9 \times 8 = 72$ ;  $12 \times 11 = 121$ . Los estudiantes serán responsables de las tablas de multiplicar del  $0 \times 0$  al  $12 \times 12$ . Esta colección de problemas identificará los conceptos que ha dominado, así como los que necesitará practicar y repasar.

\*\*\*Resuelva estos problemas sin el uso de una calculadora y muestre todo el trabajo.

Los problemas aquí son muy representativos de los tipos de elementos que necesitará dominar ANTES de matemáticas de quinto grado... ¡Así que le recomendamos encarecidamente que incluya este paquete en sus festividades de verano! ¡Buena suerte y disfruta!

## I. Numbers & Operations in Base Ten

1. Write the given number in expanded form: 12,695
2. Round the given number to the place value of the underlined digit: 123,875
3. If the following number were increased by six hundred, what would the new number be? 7,196
4. Compare the following numbers using  $<$ ,  $>$ ,  $=$ .

$$2,328 \underline{\hspace{1cm}} 2,238$$

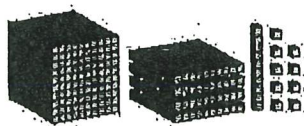
5. a. Find the sum:

$$45654 + 32879$$

- b. Find the difference:

$$45654 - 32879$$

6. What is the value of the given model: \_\_\_\_\_



7. a. Find the sum:

$$3078 + 2398$$

- b. Find the difference:

$$3078 - 2398$$

8. Write the number "six hundred three" in standard form: \_\_\_\_\_



9. Three friends got together to sell beverages.

Akash sold 13 cups of lemonade.

Harleen sold 18 cups of iced tea.

Shamika sold 24 cups of apple juice.

How many drinks did they sell together?

10. Write the following statement as a multiplication equation:

35 is 5 times as many as 7.

## **II. Operations & Algebraic Thinking**

11. List all of the factors of 60.

12. A school district had four elementary schools to start the year. North Elementary School had 1,175 students; East Elementary School had 1,580 students; West Elementary School had 1,435 students; and South Elementary School had 1,810 students.

However, they thought their elementary schools were too crowded, so they built another elementary school halfway through the year. They divided the students so that each of the 5 schools had the same amount of students. How many students did each school have after the new school was built?

13. Anthony is buying a black shirt and a blue jacket. The cost of the blue jacket is 3 times as much as the black shirt. If the black shirt costs \$12, how much does the blue jacket cost?

14. Find the product of 3,541 and 26.

15. Divide. Check your answer.

$$7 \overline{) 178}$$

16. Which list contains all prime numbers?

- a. 19, 28, 29
- b. 11, 19, 30
- c. 11, 19, 29
- d. 11, 15, 29

17. What is the product of  $34 \times 447$ ?

18. There are 72 candles in 8 drawers. Each drawer has the same number of candles. Which number sentence shows how many candles are in each drawer?

|-----72 candles-----|

?	?	?	?	?	?	?	?
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Candles per drawer

19. What is the best estimate of the product of  $9 \times 78$ ?
- About 600
  - About 630
  - About 720
  - About 800

20. Which number completes the table?

n	153	126	99	57
$n \div 9$	17	?	11	3

21. There were 26 computers in the computer lab. If  $c$  represents the number of computers that were removed from the lab, which expression represents the number of computers that remain in the computer lab?

- a.  $26 - c$       b.  $26 + c$       c.  $26 \cdot c$       d.  $26 \div c$

22. Danny had \$216. After paying for a new CD player, he had  $\$216 - x$ , where  $x$  equals the amount he paid for the CD player. If  $x$  is \$38, how much money did Danny have after he paid for the CD player?

23. A newborn manatee weighs 65 pounds. The mother manatee weighs 17 times as much. How much does the mother manatee weigh?

24.  $2,608 \div 4 =$

25. A DVD cabinet has 7 shelves. Each shelf can hold about 38 DVDs. What is a reasonable estimate of the number of DVDs the cabinet can hold?

A. 210 because  $7 \times 38$  is about  $7 \times 30 = 210$

B. 280 because  $7 \times 38$  is about  $7 \times 40 = 280$

C. 320 because  $7 \times 38$  is about  $8 \times 40 = 320$

D. 350 because  $7 \times 38$  is about  $7 \times 50 = 350$

26. Complete the table.  
Then express the pattern in a number sentence.

INPUT	OUTPUT
1	3
2	6
3	
	12
5	

### III. Numbers & Operations: Fractions

27. Find the common denominator of these numbers:  $\frac{1}{5}$  and  $\frac{3}{4}$
28. Solve:  $5\frac{1}{4} + 6\frac{3}{4} =$
29. Solve:  $3\frac{3}{7} - 1\frac{1}{7} =$
30. Solve:  $5 \times \frac{1}{4} =$
31. In a relay race, each runner runs  $\frac{1}{2}$  of a lap. If there are 4 team members running, then how long is the race? Show your reasoning with words and/or a model.



32. You are following the recipe for Chocolate-Oatmeal Drop Cookies.

2  $\frac{3}{4}$  cups flour  
2  $\frac{1}{2}$  teaspoons baking powder  
 $\frac{1}{2}$  teaspoon salt  
 $\frac{1}{2}$  cup margarine  
1  $\frac{3}{4}$  cups sugar  
1  $\frac{1}{2}$  teaspoons vanilla  
2 eggs  
1  $\frac{1}{4}$  cups milk  
2 cups quick oatmeal  
1 ounce cocoa

In the kitchen you have the following amount of each ingredient:

Flour: 8 cups  
Baking Powder: 20 teaspoons  
Salt: 12 teaspoons  
Margarine: 5 cups  
Sugar: 8 cups  
Vanilla: 10 teaspoons  
Eggs: 1 dozen  
Milk: 4 cups  
Oatmeal: 8 cups  
Cocoa: 8 ounces

Determine how much of each ingredient you would have left over after you complete the recipe for the cookies.

Flour:	_____
Baking Powder:	_____
Salt:	_____
Margarine:	_____
Sugar:	_____
Vanilla:	_____
Eggs:	_____
Milk:	_____
Oatmeal:	_____
Cocoa:	_____

33. Write the following decimals as fractions:

a. 0.3

b. 1.5

c. 0.62

d. 4.55

34. Ron says 0.18 is greater than 0.5. Nick says Ron is wrong. Who is right? Justify your answer with written explanation.

#### IV. Measurement & Data

35. How many inches are in 6 feet?

36. How many millimeters are in 3 centimeters?

37. A rectangular garden has an area of 80 square feet.  
It is 5 feet wide.

a. How long is the garden?

b. What is the perimeter of the garden?

38. Gina decides to figure out how long her class spends actually studying and learning in one day. She arrives at school at 8:30 a.m. The class goes to recess from 9:30 a.m. to 9:45 a.m., and then works in literature circles and writing until 11:30 a.m., when the class goes to lunch. Students are at lunch for 40 minutes. After they return to class, they work on math until their ten-minute afternoon break at 1:30 p.m. After break, they work on science and social studies until school dismisses at 3:10 p.m. How much time are the students in school? How much time are they learning and studying? Give your answer in hours and minutes.

39. Mr. North spent \$144.00 to build a fence around the perimeter of his vegetable garden. He paid \$6.00 per yard for fencing.

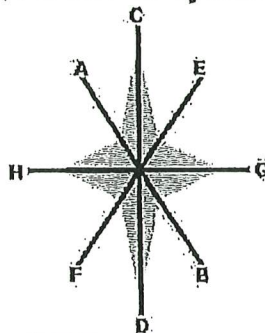
- a. Draw two possible plans for Mr. North's vegetable garden. Include the measurements for area and perimeter.
- b. Explain the steps you took to solve this problem.
- c. Which plan do you think is the best design? Why?

40. Chris and Kevin have an insect collection. They have measured the lengths of all their insects. Their data show that 4 insects are  $\frac{1}{8}$  inch long, 6 are  $\frac{1}{4}$  inch long, 8 are  $\frac{1}{2}$  inch long, 2 are  $\frac{1}{6}$  inch long, 1 is  $\frac{1}{12}$  inch long, and 5 are  $\frac{1}{3}$  inch long.
- Create a line plot that shows the data.
  - How much longer is the longest insect from the shortest insect?

### V. Geometry

41. A right angle is an angle that measures how many degrees?

42. Which of the lines is a line of symmetry for the star below?



- CD only
  - AB and EF
  - CD and GH
  - AB only
43. What is the name of a polygon with 5 vertices?



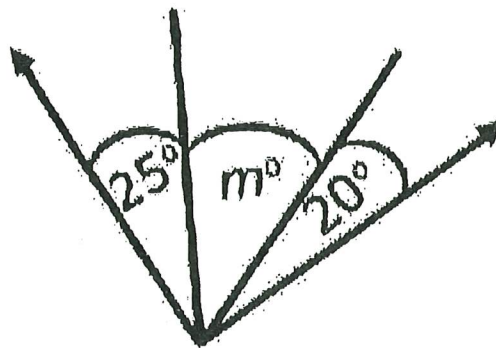
44. Draw an angle that is

I. Obtuse

II. Right

III. Acute

45. Ella and Molly's teacher told them that the two outside rays in this drawing are perpendicular. She asked them to find the missing angle measure. What is it?



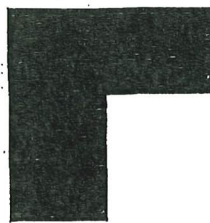
46. How many pairs of perpendicular line segments make up the figure below?

A. 6

B. 3

C. 5

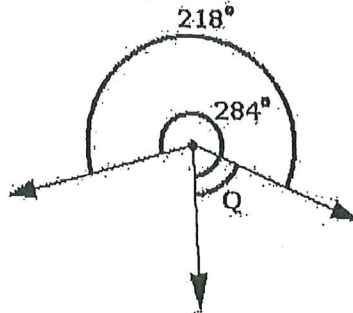
D. 12



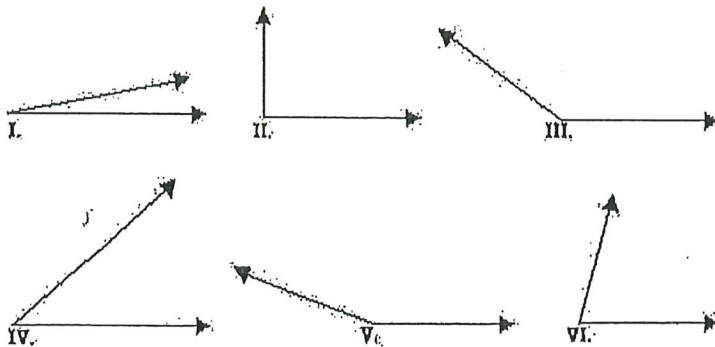
47. Which of the following is a 4-sided shape whose opposite sides are parallel?

- A. cube    B. triangle    C. parallelogram    D. circle

48. What is the measure of  $\angle Q$  below?



49. Which angle below appears to be a right angle?



50. Which figure has **exactly** two lines of symmetry?

