



AcadeMir Charter Schools

**2024 SUMMER
INCOMING 7TH GRADE
MATH PACKET**



AcadeMir Charter School West 2024 Summer Learning Requirements

Dear Parent(s)/Guardian(s),

In preparation for the 2024 – 2025 school year and to ensure that our students maintain growth-oriented academia during the summer, the school curriculum team has created the following Summer Learning assignment for each student to complete by the first day of school. Each student must complete the Summer Learning Packet over the summer and turn it in to your classroom teacher by August 23, 2024.

Summer Reading

ACSW students will be expected to read the novel from the reading list for their incoming grade level. For example, if your child is entering 1st grade in the fall, he/she would read the 1st grade novel and complete the activity. Please note that this assignment will be worth one grade for Reading and one grade for Language Arts.

Mathematics Activities

ACSW students are required to complete the mathematics packet that pertains to their incoming grade level and/or assignment. For example, if your child is in the Accelerated Mathematics course in the elementary level, he/she needs to complete the Accelerated packet. For middle school, Algebra, Geometry, etc. is separated from the ELA, Science, and Social Studies packet. Please ensure that you do all the components.

Thank you for your partnership in ensuring your child continues to strive for excellence over the summer!
We look forward to an outstanding 2024 – 2025 school year!

Sincerely,

Susie Bello, Principal
AcadeMir Charter School West
bello@academircharterschoolwest.com

ACADEMIR CHARTER SCHOOLS



Dear incoming 7th grader,

We hope you had a wonderful 6th grade year!

This summer math packet has been created to help you review and prepare for 7th grade Mathematics. It covers many of the math topics that you learned in class this year, which we will be building on next year.

- Please show all of your work for every problem in the packet. You can show your work on a separate sheet of paper.
- The paper should be neatly organized - with every problem numbered.
- Highlight, draw a box, or draw a circle around your final answers.
- Do **NOT** use a calculator

Note: If you submit your summer packet without the work, you **WILL NOT receive full credit.*

The completed packet is due on the first week of school by:

Friday, August 23rd.

It will count as your first math grade of the new school year.

We hope you have a nice summer and look forward to seeing you in August!

Name _____

1. A bag of marbles only has red and blue marbles. The bag has a ratio of blue marbles to red marbles of 3:5, and there are 24 blue marbles in the bag. What is the total number of marbles in the bag?

2. For each inequality, substitute the given values for the variable to determine if they make the inequality true.

Part A

Which of the following values of v make the inequality $v + 4 \geq 11$ true? Select all that apply.

- 11
- 8
- 7
- 7
- 8

Part B

Which of the following values of t make the inequality $-6t < -24$ true? Select all that apply.

- 8
- 6
- 4
- 4
- 6

3. Part A

For the equation $c \times \frac{4}{5} = 15\frac{1}{5}$, use mathematical reasoning to make the statement true.

The solution to the equation will be

greater than
 less than

$15\frac{1}{5}$ because

$15\frac{1}{5}$ is multiplied by the reciprocal of $\frac{4}{5}$

which is

greater than
 less than

 1.

Part B

Find the solution to the equation in Part A.

$c =$.

4. A pancake recipe takes 3 cups of flour for every 2 dozen pancakes. How many cups of flour does Sally need to make 96 pancakes? Use the table to help.

Flour (cups)	3	6			
Pancakes (dozens)	2	4			

- (A) 12
- (B) 96
- (C) 15
- (D) 288

5. An animal hospital has 36 cat patients. Each cat eats 3 scoops of cat food per day. Let s represent the total number of scoops of cat food the animal hospital will need per day.

Part A

Which equation represents the total number of scoops of cat food the animal hospital will need per day?

- (A) $36 = 3s$
- (B) $s = 36 \times 3$
- (C) $s = 36 + 3$
- (D) $36 = s - 3$

Part B

Select the correct value to complete the statement.

The animal hospital will need

<input type="checkbox"/>	12	scoops of cat food per day.
<input type="checkbox"/>	39	
<input type="checkbox"/>	108	

6. Match each expression with its equivalent value.

	$\frac{8}{15}$	$\frac{5}{14}$	$\frac{1}{4}$	$\frac{9}{35}$
$1\frac{1}{4} \div 3\frac{1}{2}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{3}{5} \div 2\frac{1}{3}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$2\frac{4}{5} \div 5\frac{1}{4}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. The polygon $ABCDEF$ has vertices $A(1, -3)$, $B(-1, -3)$, $C(-1, -1)$, $D(-4, -1)$, $E(-4, 5)$ and $F(1, 5)$. Find the perimeter of the polygon, in units.

8. The midday temperature in Palm Beach was 86°F . The temperature then changed 2°F per hour for the next 3 hours. The expression $86 - |-2 \cdot 3|$ represents the current temperature.

What is the current temperature in degrees Fahrenheit?

9. Which of the following is equivalent to $\frac{7}{8}$?

- (A) 0.875
- (B) 7.8
- (C) 0.625
- (D) 1.14

10. Select all the questions that are statistical questions.

- How many quarters are in your pocket?
- How many KWh of electricity does John's household consume per day?
- How many messages does an American teenager send each day?
- What is your shoe size?
- How many siblings does Olivia have?

11. Select all the expressions that are equivalent to $3x - 1$.

- $7x + 2x - 6x - 1$
- $2(2x - 1) - x + 1$
- $3(x - 1) + 1$
- $5x + 2 - 2x - 3$
- $6x - 3(x - 1)$

12. Find the difference: $-8 - 5$.

13. Mr. Pham assigns a quiz that will have at most 15 questions. Write an inequality that shows how many questions, q , will be on Mr. Pham's quiz.

14. The data set lists the ages of the cast members of a recent children's play. Find the median age.

{14, 11, 8, 12, 5, 3, 17, 10, 8, 11}

15. Which of the following is furthest from 0 on the number line?

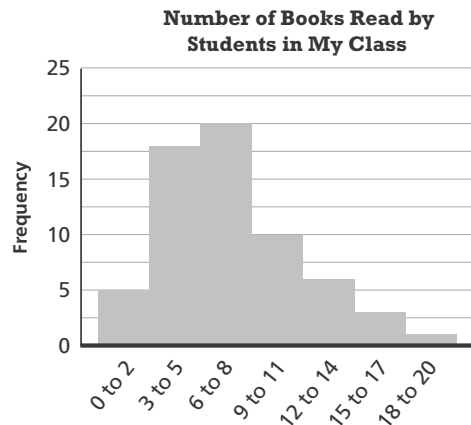
- (A) $-|3.2|$
- (B) 4.8
- (C) $-|-8.2|$
- (D) $|-11.7|$

16. Choose the equation that has the value of the variable closest to 0 on a number line.

- (A) $-4w = 5$
- (B) $-4x = 2$
- (C) $-3 + y = 12$
- (D) $z + 3 = -2$

17. A high-speed train travels 450 miles from Richmond, VA, to Savannah, GA. Then, it travels 270 miles to Orlando. The trip takes 6 hours in all. What is the speed of the train in miles per hour?

18. Refer to the histogram.



Use the histogram to complete the statement below.

Since most of the data values are

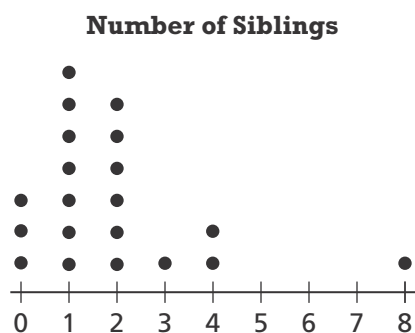
- evenly spread out,
- located on one side of the mean,

the data set is skewed.
 symmetric.

19. Which expressions are equivalent to $12 + 28$? Select all that apply.

- $2(6 + 14)$
- $2(6 + 7)$
- $4(3 + 7)$
- $4(4 + 7)$
- $4(3 + 8)$

20. The data set shown contains an outlier. If the outlier is removed, what is the effect on the mean?



- (A) The mean remains the same.
- (B) The mean decreases by about 0.3.
- (C) The mean decreases by about 0.6.
- (D) The mean increases by about 0.2.

21. Select whether each equation is true or false.

	True	False
$10.05 \times 1.4 = 14.07$	<input type="checkbox"/>	<input type="checkbox"/>
$4.39 \div 1.3 = 3.75$	<input type="checkbox"/>	<input type="checkbox"/>
$19.99 \times 15 = 299.85$	<input type="checkbox"/>	<input type="checkbox"/>
$24.36 \div 2.1 = 11.4$	<input type="checkbox"/>	<input type="checkbox"/>

22. Consider the following three pairs of numbers.

Pair A	Pair B	Pair C
52, 72	96, 64	48, 84

Select all the correct statements about these pairs.

- Pair A and Pair C have the same GCF.
- All three pairs have GCFs that are not prime numbers.
- The GCF of Pair C is 12.
- The GCF of Pair B is 16.
- The prime factorization of the GCF of Pair B is $2 \times 2 \times 2 \times 2$.

23. Tasha has a goal of collecting 360 canned goods for a food drive at school. She has collected 45 canned goods so far. What percentage has she collected so far? What is the ratio between the number of canned goods already collected and number of canned goods that are still needed to reach her goal?

Select the correct values to make each statement true.

360 45 12.5 87.5 100 315

The percentage of canned goods that Tasha has collected is %.

The ratio of canned goods collected to canned goods still needed is / .

24. Which of the following are equivalent to -9 ? Select all that apply.

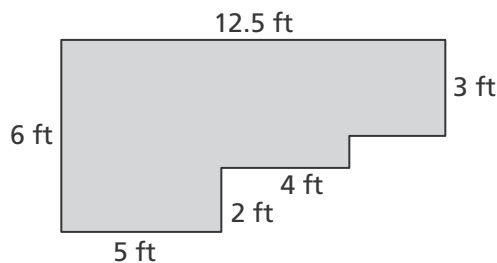
- $\frac{-27}{3}$
- $\frac{36}{-4}$
- $\frac{45}{5}$
- $\frac{-3}{27}$
- $-\frac{18}{2}$
- $\frac{-54}{-6}$

25. Point V is located at $(-4.3, -3.8)$.
Point W is located at $(-4.3, 3.8)$.
Complete the sentence about Point W .

Point W is a reflection of Point V over

- the x -axis.
 y -axis.

26. Select all the expressions that can be used to find the area, in square feet, of the polygon shown.



- $(12.5 \times 6) - 18.5$
- $(5 \times 6) + (4 \times 4) + (3 \times 3.5)$
- $(7 \times 3) + (6 \times 5)$
- $(3 \times 12.5) + (1 \times 9) + (2 \times 5)$
- $(9 \times 6) + (3 \times 3.5) - (2 \times 4)$

27. Find the value of 2^3 .

28. Last year, Mandy spent \$43,850 and earned \$48,135. Select all the correct statements about Mandy's budget.

- A positive number should represent Mandy's spending.
- Negative numbers should represent Mandy's earnings and spending.
- A positive number should represent Mandy's earnings.
- Mandy was in debt by the end of that year.
- Mandy was able to save some money by the end of that year.

29. Which of the following orders the values from least to greatest?

$$-|-12|, -|5|, -|-4|, |-12|$$

- (A) $|-12|, -|5|, -|-4|, -|-12|$
- (B) $|-12|, -|-4|, -|5|, -|-12|$
- (C) $-|-12|, -|5|, -|-4|, |-12|$
- (D) $|-12|, -|-12|, -|5|, -|-4|$