

# SUMMER MATH PACKET

Name \_\_\_\_\_

## For Students Entering Math 6

Welcome to sixth grade math at School of the Arts! The following assignments are a mixed review of fourth and fifth grade standards to prepare students for sixth grade math at SOA. The assignments are chunked into smaller, weekly tasks in an effort to make this summer work less overwhelming and to keep students reviewing all summer break. Please print and complete this packet, attaching scratch paper as needed to show all completed work. These assignments are designed to be completed without using a calculator.

**THIS ASSIGNMENT IS DUE THE FIRST FRIDAY OF THE NEW SCHOOL YEAR.**

### Table of Contents - Page, Objective, and Suggested Completion Date

Page 2 Write Numbers in Words and Digits . . . . .	Week 1
Page 3 Order Decimals . . . . .	Week 2
Page 4 Add and Subtract Whole Numbers . . . . .	Week 3
Page 5 Multiply and Divide Whole Numbers . . . . .	Week 4
Page 6 Fraction Models and Operations. . . . .	Week 5
Page 7 Add and Subtract Decimals. . . . .	Week 6
Page 8 Reading Scales and Finding Area and Perimeter . . . . .	Week 7
Page 9 Coordinate Graphing. . . . .	Week 8
Pages 10- 11 Data Analysis . . . . .	Week 9
Page 12 Factors and Multiples . . . . .	Week 10

# SUMMER MATH PACKET

---

## Write Numbers in Words and Digits

Exercise: Write the number name.

1. 560.08

2. 7.016

3. 24.47

4. 6,003

5. 3,005,600.07

Write the number the name represents:

6. Forty-five thousandths

7. Seventeen and seven hundredths

8. Five million, three hundred thousand, twenty-nine and six tenths

9. Six million and five thousandths

10. Two hundred eight thousand four

# SUMMER MATH PACKET

---

## Order Decimals

Exercise: List each group of numbers in order **from least to greatest**:

1. ) 20, 4, 0.6, 0.08

2. ) 246.8, 248.6, 244.9, 246.5

3. ) 1.03, 2.4, 0.89, 0.987

4. ) 14.8, 2.68, 0.879, 8.47

5. ) 5.3, 5.12, 5.38, 5.29

6. ) 54.89, 56.3, 58.1, 52.98

7. ) 4, 0.006, 0.8, 0.07

8. ) 297, 3.456, 64.4, 7.24

9. ) 794, 793.8, 794.65, 794.7

10. ) 9, 6.7, 7.24, 14

11. ) 4.2, 4.19, 4.07, 4.3

12. ) 3.75, 6.7, 3.8, .45

# SUMMER MATH PACKET

---

## Add and Subtract Whole Numbers

Please show all work for full credit, attaching your scratch paper as necessary.

1.)  $6,496 + 3,288 =$

2.  $54,398 + 64,508 =$

3.)  $3,254 + 4,113 =$

4.)  $754 - 549 =$

5.)  $54,678 + 74,357 =$

6.)  $98,455 - 14,789 =$

7.)  $38,904 - 32,899$

8.)  $908 - 774 =$

# SUMMER MATH PACKET

---

## Multiply and Divide Whole Numbers

- You may use a multiplication algorithm or lattice multiplication.
- To divide, please clarify the quotient and remainder.
- **BONUS:** if you can change your remainder to a decimal, please provide the answer.
- Be sure to show all work for full credit, using additional scratch paper as needed.

$24 \div 3 =$

$24 \div 6 =$

$16 \times 15 =$

$20 \div 5 =$

$74 \times 10 =$

$190 \div 19 =$

$32 \div 2 =$

$79 \times 9 =$

$216 \div 12 =$

$444 \times 77 =$

$114 \div 14 =$

$4 \times 58 =$

# SUMMER MATH PACKET

## Fraction Models

Split and Label the following fractional parts (circles) with the given fractions.

1.)  $\frac{4}{5}$



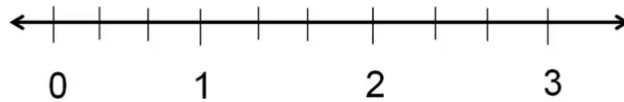
2.)  $\frac{7}{8}$



3.)  $\frac{4}{2}$



4.) Place each of the above fractions on the number line below.



**Fraction Operations:** When adding and subtracting fractions, we need to be sure that each fraction has the same denominator, then add or subtract the numerators together. Please show all work for full credit.

1.  $\frac{1}{2} + \frac{3}{4}$

4.  $\frac{5}{10} + \frac{1}{3}$

2.  $\frac{5}{8} + \frac{3}{4}$

5.  $\frac{5}{6} - \frac{3}{4}$

3.  $\frac{7}{3} + \frac{1}{3}$

6.  $\frac{20}{50} - \frac{1}{10}$

# SUMMER MATH PACKET

---

## Add and Subtract Decimals

Line up the decimals to add or subtract the numbers below, inserting zeros as placeholders where necessary. Please show all work for full credit.

1)  $15.7 + 2.34 + 5.06 =$

2)  $64.038 + 164.8 + 15.7 =$

3)  $2.6 + 64.89 + 4.007 =$

4)  $12.9 + 2.008 + 75.9 =$

5)  $87.4 - 56.09 =$

6)  $5.908 - 4.72 =$

7)  $68.9 - 24.74 =$

8)  $955.3 - 242.7 =$

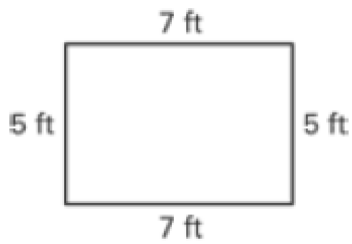
# SUMMER MATH PACKET

## Finding Area and Perimeter

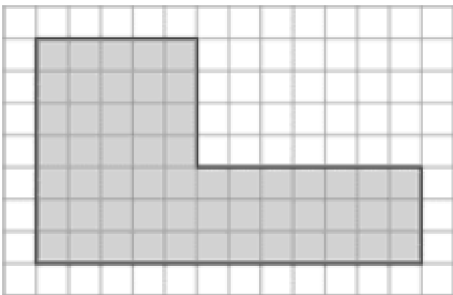
To find the perimeter of a rectangle or square, we must add the lengths of all of the sides together.

To find the area of a square or a rectangle, we must multiply the length by the width. Be sure to decompose irregular shapes into rectangles as needed to find their areas.

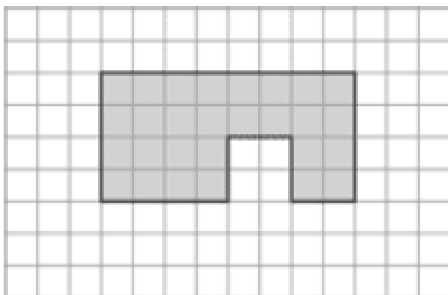
Exercises: Find the area and perimeter of the following. All units are in feet.



area \_\_\_\_\_ perimeter \_\_\_\_\_



area \_\_\_\_\_ perimeter \_\_\_\_\_



area \_\_\_\_\_ perimeter \_\_\_\_\_



# SUMMER MATH PACKET

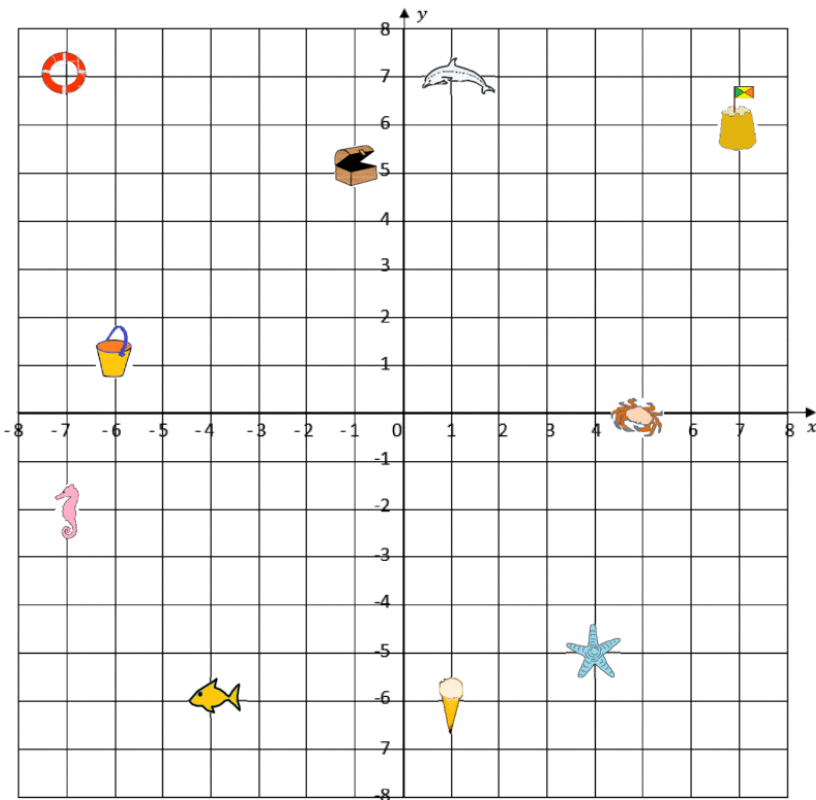
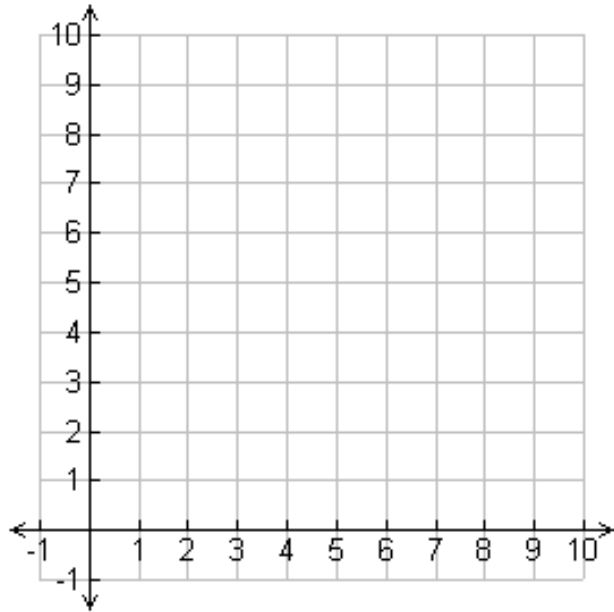
## Coordinate Graphing

Graph the given coordinates on the grid to the right.

Then, connect the ordered pairs to create a polygon.

$(2, 2) (5, 5) (8, 2) (2, 2)$

- 1) Name the polygon created by connecting the ordered pairs:
- 2) What is the area of the polygon you created?



Using the coordinate graph to the left, list the location of each object's coordinates.

Crab: \_\_\_\_\_

Bucket: \_\_\_\_\_

Sandcastle: \_\_\_\_\_

Seahorse: \_\_\_\_\_

Fish: \_\_\_\_\_

Ice Cream: \_\_\_\_\_

Dolphin: \_\_\_\_\_

# SUMMER MATH PACKET

## Data Analysis

Part One: Sixth grade students were asked about the number of states they've visited. Use the dot plot of their answers to answer the question below.

1. How many total students were surveyed?

2. How many students have visited 6 or fewer states?

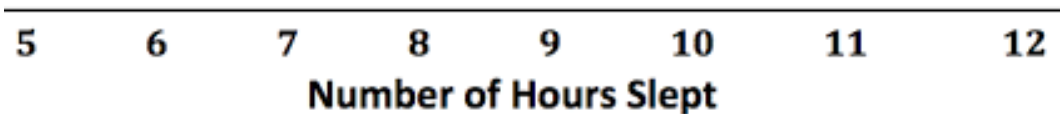
3. What is the average (mean) number of states visited?



Part Two: 12 sixth graders were asked how many hours they slept a night. Use their answers below to create a dot plot of the data.

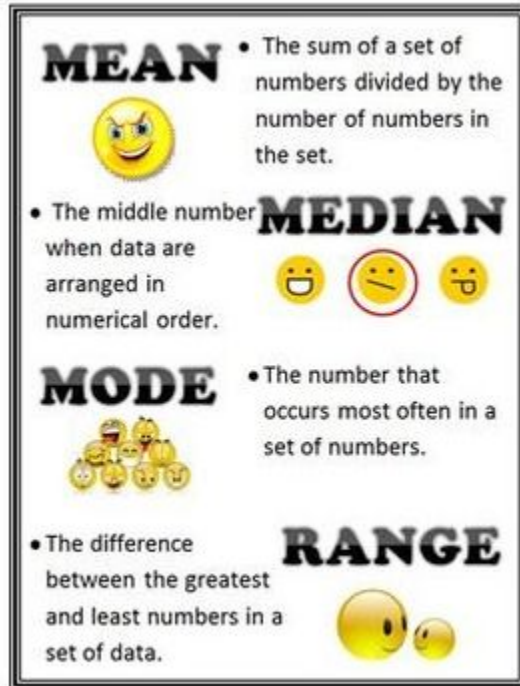
Number of Hours Slept: 6, 6, 7, 7, 5, 8, 7, 9, 9, 10, 9, 8

### Dot Plot of Number of Hours Slept



# SUMMER MATH PACKET

Find the Mean/Average, Median, Mode, and Range for each data set.



**Number of Pencils in 8 Sixth Grade Lockers: 5, 12, 6, 3, 8, 16, 8, 6**

Mean:

Median:

Mode:

Range:

**Number of Books Read this Summer by 7 Students: 2, 7, 4, 11, 12, 4, 6**

Mean:

Median:

Mode:

Range:

## SUMMER MATH PACKET

---

### **Factors and Multiples.**

List the factors of the numbers below. Then, circle the Greatest Common Factor for each pair of numbers.

1) 18 and 24

2) 12 and 15

3) 17 and 20

4) 21 and 40

Find the first 10 multiples of the following numbers. Circle the Least Common Multiple of each pair of numbers.

1) 12 and 4

2) 9 and 8