

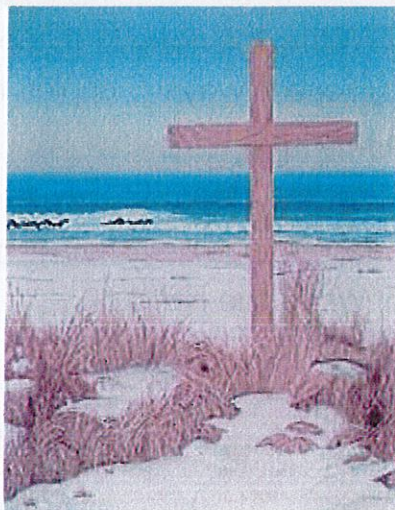


HOLY CROSS ACADEMY
RUMSON, NJ

Incoming 6th Grade

Holy Cross Academy

2025 Summer Assignments



Dear Students:

Get ready to shine brighter than the sun! As we end another terrific school year and look forward to the sunny days of summer, our learning journey continues with the attached summer reading and math packets. Our summer assignments aren't just tasks; they are your passport to a summer filled with growth and enrichment. So, let's dive in together, embrace the warmth of learning, and make this summer one to remember! Please complete and bring the assignments with you on the first day of school in September.

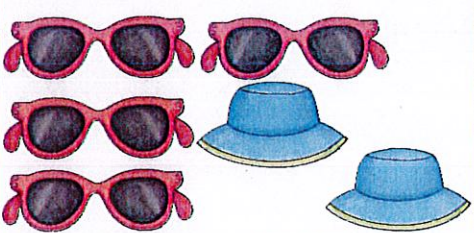
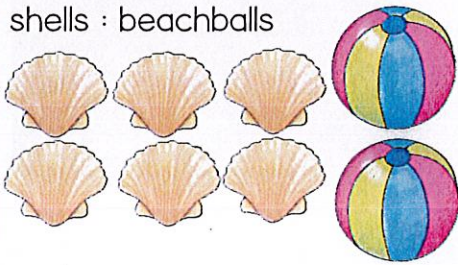
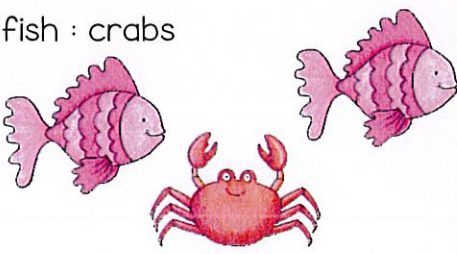

Enjoy the many blessings of summer!



CONCEPT REMINDERS

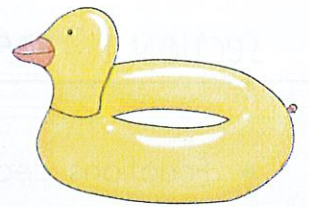
- ◆ A ratio is a comparison between two quantities. It can be written three ways: a to b, a : b, or a/b.
- ◆ Equivalent ratios have the same value when simplified.
- ◆ A unit rate compares a quantity to one unit. Example: 60 miles in 2 hours is a unit rate of 30 miles per hour.
- ◆ Use tables or double number lines to find equivalent ratios or unit rates.

RATIOS PRACTICE

<p>1. Simplify the following ratio 6:8</p>	<p>2. Write the ratio in three different ways: 5 apples to 3 oranges</p>	<p>3. Are the following ratios equivalent? 4 : 6 and 6 : 9</p>										
<p>4. Write the ratio of sunglasses : hats</p> <div style="text-align: center;">  </div>	<p>5. Write the ratio of shells : beachballs</p> <div style="text-align: center;">  </div>	<p>6. Write the ratio of fish : crabs</p> <div style="text-align: center;">  </div>										
<p>7. Complete the ratio table: For every sandcastle Julia builds, she uses 12 seashells</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 20%;">Seashells</td> <td style="width: 20%;">12</td> <td style="width: 20%;">24</td> <td style="width: 20%;"></td> <td style="width: 20%;">48</td> </tr> <tr> <td>Sandcastles</td> <td>1</td> <td></td> <td>3</td> <td></td> </tr> </table> <div style="text-align: right; margin-top: 20px;">  </div>			Seashells	12	24		48	Sandcastles	1		3	
Seashells	12	24		48								
Sandcastles	1		3									
<p>8. 12 out of 18 students passed the spelling test. What is the ratio of students that passed the test to the students that did not pass?</p>	<p>9. A recipe uses 2 cups of flour for every 3 cups of sugar. How much flour is needed for 9 cups of sugar?</p>	<p>10. A bag contains 4 red marbles, 4 green marbles, and 6 white marbles. What is the ratio of white marbles to the total number of marbles in the bag?</p>										



UNIT RATES PRACTICE



1. We paid \$65 for 5 books, which is a rate of \$___ per book	2. A tire store takes 10 weeks to sell 120 tires. What is the rate sold per week?	3. Sue earned \$45 for baking 3 cakes. What is the rate earned per cake baked?
4. A store sells 2 pounds of fruit for \$13, which is a rate of \$___ per pound	5. A runner ran 44 miles in four days. What is the rate he ran per day?	6. A baker worked 10 hours and made \$170, which is a rate of \$___ per hour
7. A bouquet of 7 flowers sold for \$56, which is a rate of \$___ per flower	8. Mike sold three hamburgers and made \$15, which is a rate of \$___ per hamburger	9. A printer took 5 minutes to print 25 pages. What is the rate of pages per minute?
10. Ben used 20 cups of flour to bake 5 cakes. How many cups did he use per cake?	11. It cost \$42 for 6 movie tickets, which is a rate of \$___ per ticket	12. Amy can run 3 miles in 30 minutes. If she continues at the same rate, how many miles can she run in 2 hours?

SECTION 2 — FRACTIONS, DECIMALS, PERCENTS

CONCEPT REMINDERS

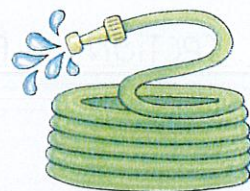
- ◆ Fractions, decimals, and percents all represent parts of a whole.
- ◆ To convert a fraction to a decimal: divide the numerator by the denominator.
- ◆ To convert a decimal to a percent: multiply by 100.
- ◆ To convert a percent to a decimal: divide by 100.
- ◆ To convert a percent to a fraction: write it over 100 and simplify.
- ◆ When adding or subtracting fractions, find a common denominator.
- ◆ When multiplying fractions: multiply the numerators, then the denominators.
- ◆ When dividing fractions: multiply by the reciprocal of the second fraction.
- ◆ Line up decimal points for addition and subtraction.
- ◆ For multiplying decimals, ignore the decimal point, multiply, then place the decimal back in.
- ◆ For dividing decimals, move the decimal in the divisor to make it a whole number and move the decimal in the dividend the same number of places.



ADDING & SUBTRACTING FRACTIONS PRACTICE

1. $\frac{1}{3} + \frac{1}{6} =$	2. $\frac{2}{3} + \frac{1}{9} =$	3. $\frac{1}{4} + \frac{3}{8} =$
4. $\frac{1}{5} + \frac{3}{10} =$	5. $\frac{3}{8} + \frac{5}{16} =$	6. $\frac{2}{5} + \frac{1}{2} =$
7. $\frac{9}{10} - \frac{4}{5} =$	8. $\frac{5}{6} - \frac{3}{8} =$	9. $\frac{4}{5} - \frac{7}{10} =$
10. $\frac{5}{6} - \frac{3}{4} =$	11. $\frac{3}{5} + \frac{2}{8} =$	12. $\frac{3}{4} + \frac{2}{9} =$

MULTIPLYING FRACTIONS PRACTICE



1.

$$\frac{3}{4} \times \frac{8}{9} =$$

2.

$$4\frac{5}{6} \times 7 =$$

3.

$$\text{Find } \frac{3}{4} \text{ of } 16$$

4.

$$\text{Find } \frac{2}{5} \text{ of } 15$$

5.

$$4\frac{3}{4} \times 2\frac{1}{2} =$$

6.

$$\frac{1}{2} \times \frac{2}{5} =$$

7.

$$6 \times \frac{1}{2} =$$

8.

$$12 \times \frac{5}{6} =$$

9.

$$\frac{12}{15} \times \frac{2}{3} =$$

10.

$$\text{Find } \frac{1}{2} \text{ of } 32$$

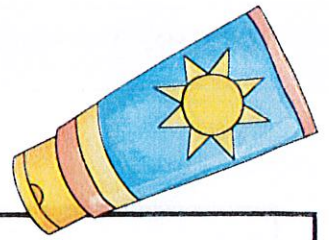
11.

$$\text{Find } \frac{1}{6} \text{ of } 66$$

12.

$$2\frac{2}{3} \times 1\frac{1}{5} =$$

DIVIDING FRACTIONS PRACTICE



1.
$$\frac{3}{4} \div \frac{2}{5} =$$

2.
$$3\frac{1}{6} \div 2 =$$

3.
$$\frac{1}{7} \div \frac{1}{8} =$$

4.
$$2\frac{1}{2} \div 4\frac{1}{2} =$$

5.
$$4\frac{3}{4} \div 2 =$$

6.
$$\frac{1}{2} \div \frac{2}{5} =$$

7.
$$6 \div \frac{1}{2} =$$

8.
$$\frac{1}{12} \div \frac{2}{7} =$$

9.
$$\frac{12}{15} \div \frac{2}{3} =$$

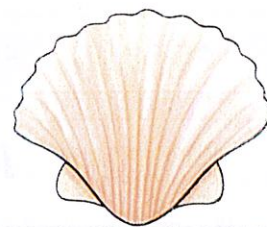
10.
$$3\frac{1}{4} \div \frac{1}{2} =$$

11.
$$\frac{4}{5} \div 2 =$$

12.
$$2\frac{2}{3} \div 1\frac{1}{5} =$$

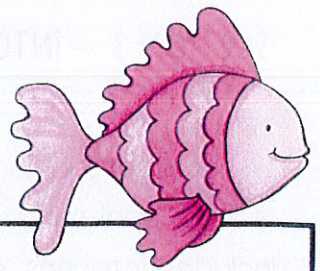
**ADDING & SUBTRACTING DECIMALS PRACTICE**

1. $23.5 + 13.72 =$	2. $18.4 - 9.2 =$	3. $2 + 5.4 + 1.3 =$
4. $124.94 + 2.87 =$	5. $9.572 - 3.671 =$	6. $15 - 9.09 =$
7. $\$12.34 + \$2.50 =$	8. $\$14 + \$6.30 + \$2.75 =$	9. $\$50 - \$35.50 =$
10. Find the sum of 12.7 and 42.8	11. Find the difference of 48.06 and 2.97	12. Find the sum of 9.2, 7.65, and 8.12

**MULTIPLYING DECIMALS PRACTICE**

1. $2.6 \times 4.2 =$	2. $12.05 \times 5 =$	3. $42.7 \times 2.9 =$
4. $88.25 \times 7 =$	5. $\$13.25 \times 5 =$	6. $7.06 \times 2.04 =$
7. $92.16 \times 7.6 =$	8. $52 \times 14.27 =$	9. $8 \times \$12.70 =$
10. $16.007 \times 2.05 =$	11. $39.3 \times 6.5 =$	12. $83.5 \times 16.02 =$

DIVIDING DECIMALS PRACTICE

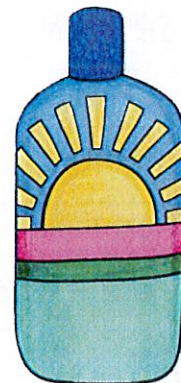


1. $4.2 \div 0.6 =$	2. $7.5 \div 1.5 =$	3. $6.3 \div 0.9 =$
4. $0.48 \div 0.6 =$	5. $12.6 \div 0.3 =$	6. $3.25 \div 0.5 =$
7. $5.04 \div 0.4 =$	8. $8.75 \div 0.25 =$	9. $8 \div 0.5 =$
10. $10 \div 0.25 =$	11. $10.5 \div 1.75 =$	12. $5 \div 0.35 =$

SECTION 3 — INTEGERS & RATIONAL NUMBERS

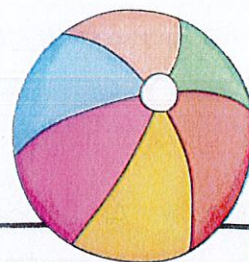
CONCEPT REMINDERS

- ◆ Integers include positive numbers, negative numbers, and zero.
- ◆ Rational numbers are any numbers that can be written as a fraction (includes integers, decimals, and fractions).
- ◆ On a number line, numbers to the right are greater than numbers to the left.
- ◆ Absolute value is the distance a number is from zero (always positive).
- ◆ Adding integers: same signs → add and keep the sign; different signs → subtract and take the sign of the number with the larger absolute value.
- ◆ Subtracting integers: keep the first number, change the subtraction to addition, and change the sign of the second number.
- ◆ Multiplying and dividing integers:
 - Same signs → positive result
 - Different signs → negative result



INTEGERS & RATIONAL NUMBERS PRACTICE

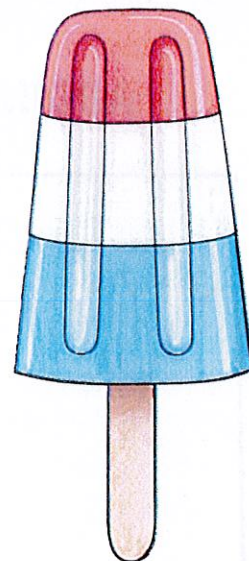
1. Plot on a number line: -4, 0, 2, -1, 5 	2. Which is greater? a) -2 or -5 b) -1 or 0 c) -6 or -3	3. Absolute value: a) $ -8 = \underline{\quad}$ b) $ 7 = \underline{\quad}$ c) $ -1 = \underline{\quad}$
4. Order from least to greatest: -7, 0, -2, 4, 1	5. Plot on a number line: -6, -3, 0, 1, 4 	6. Which is greater? a) -9 or -4 b) 3 or -3 c) 0 or -5
7. Absolute value: a) $ -10 = \underline{\quad}$ b) $ 2 = \underline{\quad}$ c) $ -7 = \underline{\quad}$	8. Order from least to greatest: 3, -1, -4, 0, 2	9. Plot on a number line: -2, 1, -5, 3, 0
10. Which is greater? a) -8 or -1 b) -2 or 5 c) -4 or -6	11. Absolute value: a) $ -2 = \underline{\quad}$ b) $ 6 = \underline{\quad}$ c) $ -3 = \underline{\quad}$	12. Order from least to greatest: -9, -5, 0, -3, 2

**ADDING & SUBTRACTING INTEGERS PRACTICE**

1. $-3 + 7 =$	2. $5 - 9 =$	3. $-6 - 4 =$
4. $12 + (-5) =$	5. $-8 + 3 =$	6. $10 - (-2) =$
7. $-15 + 9 =$	8. $-7 - 6 =$	9. $4 + (-11) =$
10. $-2 + 10 =$	11. $6 - 13 =$	12. $-5 - (-8) =$

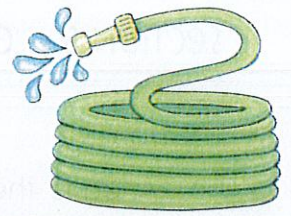
CONCEPT REMINDERS

- ◆ An expression is a math phrase that can include numbers, variables, and operations (but no equals sign).
- ◆ An equation is a statement that two expressions are equal (it has an equals sign).
- ◆ To evaluate an expression, substitute the value of the variable and follow the order of operations.
- ◆ PEMDAS is used for order of operations: Parentheses, Exponents, Multiplication & Division (left to right), Addition & Subtraction (left to right).
- ◆ In one-step equations, use the inverse operation to isolate the variable.
- ◆ In inequalities, the solution is often shown as a number line or described in words.



ORDER OF OPERATIONS PRACTICE

1. $5 + (6 \times 2) =$	2. $18 \div 3 + 7 =$	3. $5^2 - 8 \div 4 + 2 \times 9 =$
4. $4 - 9 + (7 \times 10) \times 2 + 5 =$	5. $55 - 9 \times (6 - 3) + 50 =$	6. $7 \times 12 \div 2 \times 9 =$
7. $6 \times 4 + 1 + 8 \div 4 =$	8. $(5 - 2 \times 3 + 4) \times 2 + 1 =$	9. $(16 - 5) \times (12 \div 3) - 4 =$
10. $(2 + 6 \div 3) - 2 \times 5 =$	11. $2 \times 3 + 4 \times 5 =$	12. $(15 \div 5 + 4) \times 2 \times 2 =$

ONE-STEP EQUATIONS & INEQUALITIES

Solve each equation or inequality. Show your work.

1. $x + 6 = 10$

2. $y - 4 = 7$

3. $3z = 15$

4. $a \div 2 = 5$

5. $m - 9 = 3$

6. $b + 7 = 13$

7. $n \div 4 = 6$

8. $5k = 30$

9. $r - 2 < 5$

10. $t + 3 \geq 9$

11. $w \div 3 \leq 4$

12. $4d > 12$

SECTION 5 — GEOMETRY: AREA, SURFACE AREA, AND VOLUME

CONCEPT REMINDERS



- ◆ Area is the space inside a 2D shape. Common formulas:
 - Rectangle: $A = l \times w$
 - Triangle: $A = \frac{1}{2} \times b \times h$
 - Parallelogram: $A = b \times h$
 - Trapezoid: $A = \frac{1}{2} \times (b_1 + b_2) \times h$
- ◆ Surface area is the total area covering a 3D shape. Break the shape into faces and find the area of each.
- ◆ Volume is the space inside a 3D object.
 - Rectangular prism: $V = l \times w \times h$

AREA OF POLYGONS PRACTICE

Find the area of each shape below. Show all working

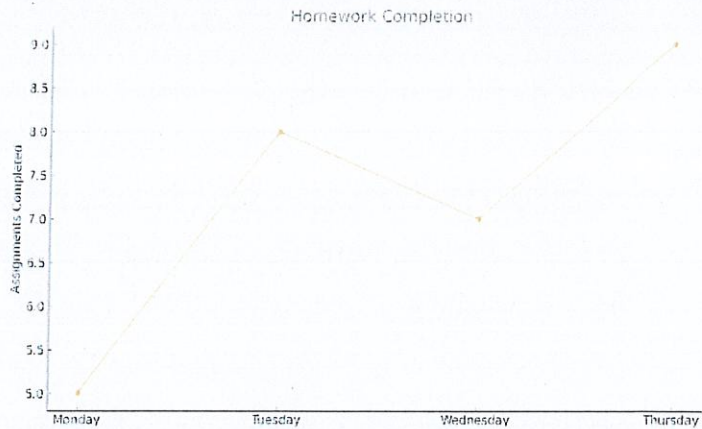
<p>1.</p>	<p>2.</p>	<p>3.</p>
<p>4.</p>	<p>5.</p>	<p>6.</p>
<p>7.</p>	<p>8.</p>	<p>9.</p>



READING & INTERPRETING GRAPHS PRACTICE

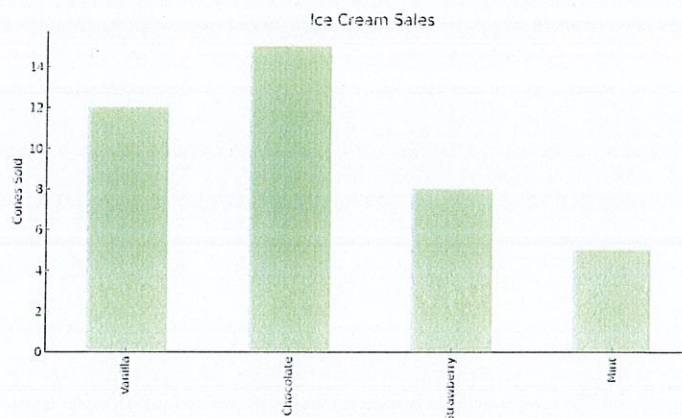
1. On which day were the most assignments completed?

What is the total number of assignments completed?



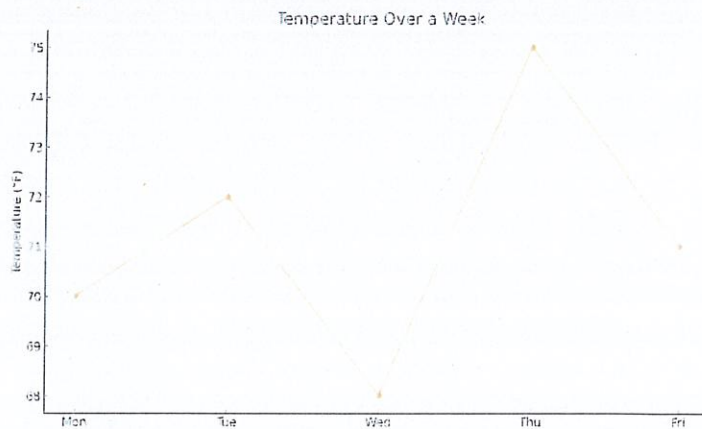
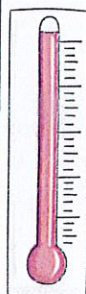
2. Which flavor was most popular?

How many more cones of Vanilla were sold than Mint?



3. On which day was it warmest?

What was the average temperature for the week?



4. Which sport is the most popular?

How many students chose Tennis and Baseball combined?

