Incoming 8th Grade
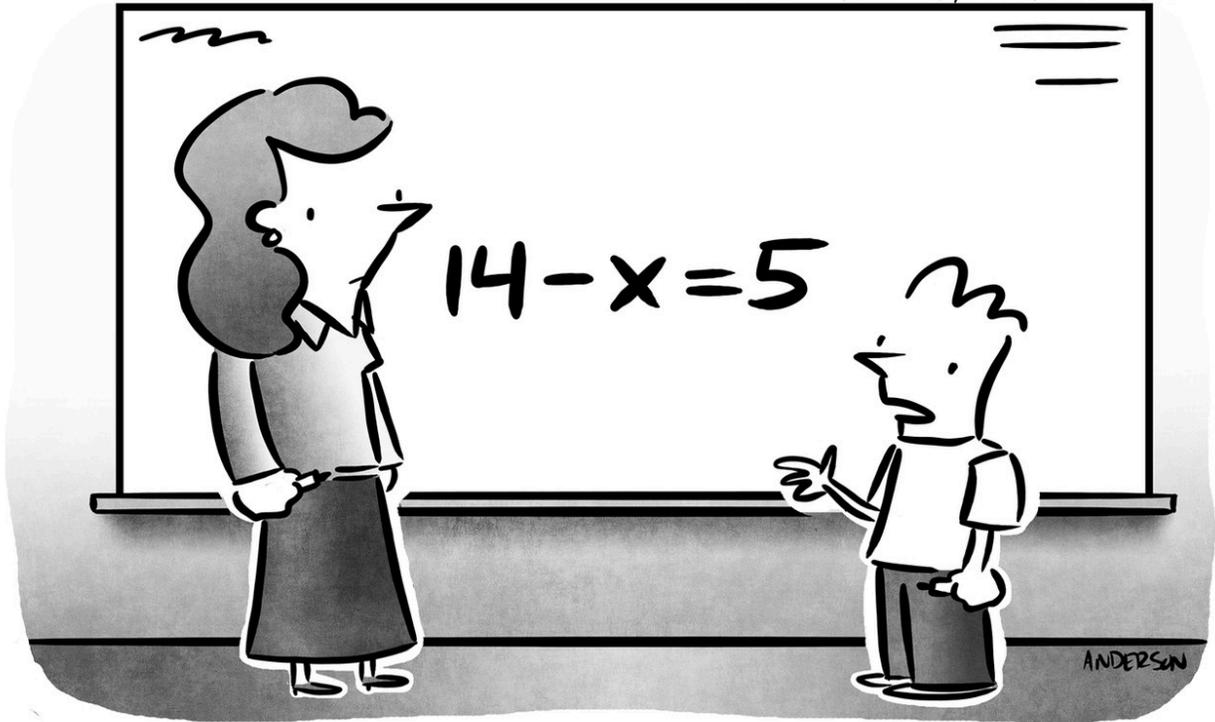# Honors Math Summer Work

"I'm just saying - sooner or later X is going to have to solve these things for itself."

Supplies List:

3 Subject Notebook

Take Home Folder - Math

Box of Tissues

Pack of College Ruled Looseleaf

TI84 Graphing Calculator (this will be needed for high school as well)

Dear Students and Families,

As we conclude a wonderful school year, I would like to thank you for your hard work, dedication, and the joy you brought to our classroom. I hope that this summer provides you all with the chance to relax, recharge, and spend quality time with friends and family.

To help maintain the progress we've made and prepare for the upcoming school year, I am assigning some summer work. The goal is to keep skills fresh and minds engaged while still allowing for plenty of summer fun.

Summer Work Overview

For Students:

- There is a weekly outline of tasks to complete that includes some spiral review and an IXL skill to work on to obtain a SmartScore of 90 - 100. Please reflect on the weekly work with a Smiley or Frowny face, depending on the difficulty of the work.
- There is a performance task to complete that is grade-appropriate.
- Optional Enrichment – *You can always review your IXL diagnostic recommendations and work on those topics.*

For Parents:

- Encourage a regular routine for light academic work. A little work each week is better than cramming it all in at the beginning or the end of summer.
- Support your child by discussing what they're learning about in math.
- Help set goals or timelines to avoid last-minute stress in August.

Due Date:

Please return all completed summer work on **September 2, 2025**. It will be our starting point for the new school year and it counts toward your first trimester grades.

If you have any questions over the summer, feel free to contact me at coconnor@stisidoreschool.com.

Wishing you a safe, joyful, and restful summer!

Warm regards,
Christine OConnor

Honors Math Teacher

8th Grade Skills
Please complete the assignments each week.

Suggested Date	Assignment	Reflection
June 16 - 20	**Week One Worksheet** IXL: G.5 Scale drawings: scale factor word problems(8th Grade Skill	
June 23 - 27	**Week Two Worksheet** A.9 Evaluate numerical expressions involving integersY6W (8th Grade Skill)	
June 30 - July 4	**Week Three Worksheet** B.14 Multi-step word problems EHX(8th Grade Skill)	
July 7 - 11	**Week Four Worksheet** G.2 Solve proportions: word problems5XV (8th Grade Skill)	
July 14 - 18	**Week Five Worksheet** H.12 Percent of change: find the original amount word problems8WK (8th Grade Skill)	
July 21 - 25	**Week Six Worksheet** I.8 Multi-step problems with percentsXXP (8th Grade Skill)	
July 28 - Aug 1	**Week Seven Worksheet** R.12 Reflections and rotations: write the rule 2F8 (8th Grade skill)	
August 4 - 8	**Week Eight Worksheet** T.5 Pythagorean theorem: word problems 87U (8th Grade Skil;)	
August 11 - 15	**Week Nine Worksheet** X.9 Graph proportional relationships and find the slope MQD (8th Grade Skill)	
August 18 - 22	**Week Ten Worksheet** CC.11 Evaluate a linear function: word problems DA6 (8th Grade Skill)	
August 25 - 29	**Check Over Packet**	

SUMMER MATH REVIEW *Week one*

MONDAY

Evaluate each expression:

$(-2)^5$	$\left(\dfrac{2}{3}\right)^3$	-3^4

TUESDAY

Write each number in standard form:

$$4.5 \times 10^{-4} \qquad 3.12 \times 10^9$$

WEDNESDAY

Determine if each graph is a function or not.

THURSDAY

Translate the figure 3 units up and 2 units to the right. What are the coordinates of the image?

FRIDAY

Solve each equation. Show all of your work.

$$-5x = 2.25 \qquad -42 = x - 31$$

SUMMER MATH REVIEW Week Two

MONDAY

Simplify each expression:

$x^5 \cdot x^3$	$g^2 \cdot g$	$x^5 \cdot x^{10}$

TUESDAY

Write each number in scientific notation:

$3,400,000$ 0.000000521

WEDNESDAY

Write the equation represented by the function:

x	y
-1	-1
0	1
1	3

THURSDAY
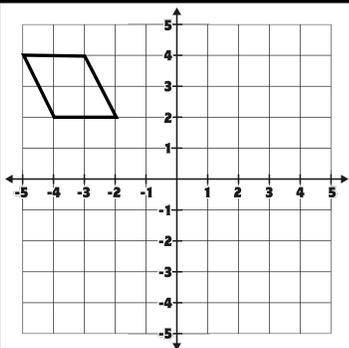
Reflect the figure across the y-axis. What are the coordinates of the image?

FRIDAY

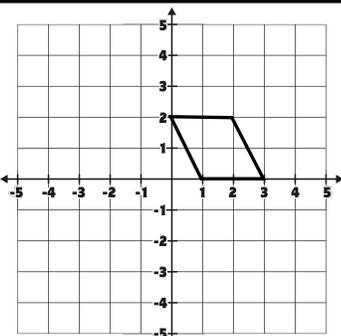Solve each equation. Show all of your work.

$3x + 7x = -90$ $-7x - x = -73.6$

SUMMER MATH REVIEW *Week Three*

MONDAY

Simplify each expression:

$x^6 \div x^3$	$h^7 \div h$	$\dfrac{b^8}{b^7}$

TUESDAY

Evaluate each expression:

$$2.3 \times 10^5 + 4.1 \times 10^5 \qquad\qquad 2 \times 10^9 - 8 \times 10^5$$

WEDNESDAY

Use the graph to write a linear function that relates y to x
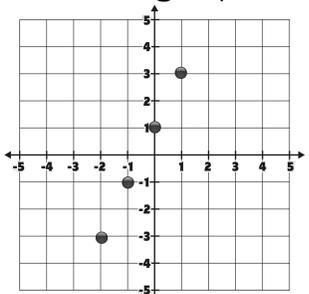
THURSDAY

Rotate the figure below 90° clockwise about the origin. What are the coordinates of the image?

FRIDAY

Solve each equation. Show all of your work.

$$-2(5x + 3) = -36 \qquad\qquad 9(-3x - 10) = -495$$

SUMMER MATH REVIEW *Week Four*

MONDAY

Simplify each expression:

$(-2^3)^4$	$(x^4)^9$	$(g^2)^7$

TUESDAY

Evaluate each expression:

$(2 \times 10^2)(6 \times 10^3)$ $\qquad\qquad$ $(3.5 \times 10^{-4})(2 \times 10^{-3})$

WEDNESDAY

Determine if the graphs below represent a linear or nonlinear function. Justify your answer.
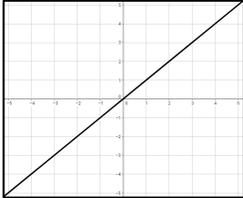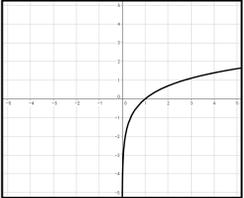
THURSDAY

The coordinates of a triangle and its image are given below. What is the scale factor?

$$(1, 2) \rightarrow (3, 6)$$
$$(1, 4) \rightarrow (3, 12)$$
$$(5, 3) \rightarrow (15, 9)$$

FRIDAY

Solve the equation. Show all of your work.
$$-3x + 14 - 4x = 5x - 9x - 4$$

SUMMER MATH REVIEW *Week Five*

MONDAY

Simplify each expression:

$(6x)^3$	$(ab)^3$	$(2ab)^5$

TUESDAY

Evaluate each expression:

$(8.1 \times 10^4) \div (2.7 \times 10^{-2})$

$$\frac{9 \times 10^5}{3 \times 10^3}$$

WEDNESDAY

Classify each number as rational or irrational.

$\sqrt{32}$	$-\dfrac{1}{3}$	$\pi + 2$
Rational or **Irrational**	**Rational** or **Irrational**	**Rational** or **Irrational**

THURSDAY

Find the missing angles.

FRIDAY

Solve each equation in terms of y. Show all work

$-3y + 6x = 24$ $z + 4x - 2y = 9z$

SUMMER MATH REVIEW *Week Six*

MONDAY

Simplify each expression:

6^0	b^0	$4^2 \times 4^0$

TUESDAY

Graph the equation using the table of values.

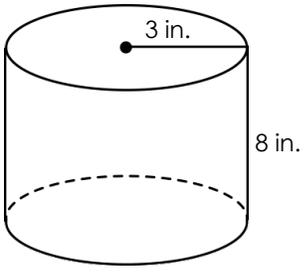| x	y= x-1	y	(x,y)
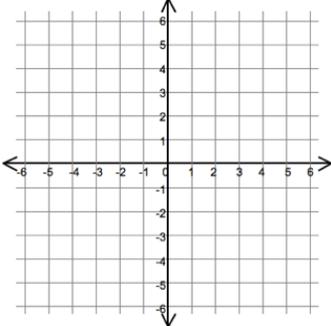
WEDNESDAY

Complete the table below. Mark off each subset the number fits in.

Number	Natural	Whole	Integer	Rational	Irrational
-9					
$\sqrt{16}$					
$\sqrt{8}$					

THURSDAY

Find the volume of the cylinder below:

3 in.

8 in.

FRIDAY

How many solutions does each equation have? Show all work

$$3(2x + 2) + 3 = 6x + 9 \qquad 5x - 3 = 2x + 9 + 3x$$

SUMMER MATH REVIEW *Week Seven*

MONDAY

Simplify each expression and rewrite it with positive exponents.

x^{-3}	$2b^{-9}$	$g^2 \div g^8$

TUESDAY

Find the slope of the line graphed below:

WEDNESDAY

Write each fraction as a decimal.

$\dfrac{2}{3}$	$-2\dfrac{1}{4}$	$\dfrac{2}{11}$

THURSDAY

Find the volume of the cone below:

8 cm

12 cm

FRIDAY

Solve the systems of equations. Show all work.
$$\begin{cases} x + y = 8 \\ x - y = 4 \end{cases}$$

SUMMER MATH REVIEW *Week Eight*

MONDAY

Simplify each expression.

$4x^{-5}$	$(f^3g^2)^{-4}$	$a^2 \times a^{-4}$

TUESDAY

Decide if x and y are directly proportional. If they are, indicate the value of k.

$5y = x$	$\frac{1}{3}y = x$	$2 + 2y = x$

WEDNESDAY

Estimate $\sqrt{70}$ to the nearest integer.

THURSDAY

Find the volume of the sphere below:

7 mm

FRIDAY

Solve the systems of equations. Show all work.
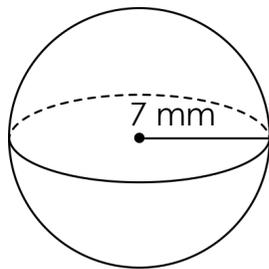
$$\begin{cases} x + 2y = 6 \\ x - y = 3 \end{cases}$$

SUMMER MATH REVIEW *Week Nine*

MONDAY

Evaluate each expression.

$\sqrt{121} =$	$\pm\sqrt{16} =$	$-\sqrt{\dfrac{4}{25}} =$

TUESDAY

Identify the x- and y- intercepts of the line below. Then, find the slope.
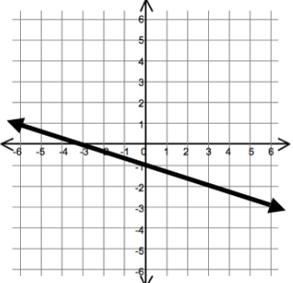

WEDNESDAY

Compare each pair of numbers using <, > or =

$\sqrt{8}\;\bigcirc\;2\dfrac{1}{3}$	$-\sqrt{10}\;\bigcirc\;-\pi$	$-0.25\;\bigcirc\;-\dfrac{3}{12}$

THURSDAY

Find the length of the missing side. Show all work.

2 ft

1.5 ft

FRIDAY

Identify the relationship between the data sets.

SUMMER MATH REVIEW *Week Ten*

MONDAY

Evaluate each expression.

$\sqrt[3]{-216} =$	$\sqrt[3]{\dfrac{8}{64}} =$	$-\sqrt[3]{-27} =$

TUESDAY

Write an equation of the line in slope-intercept form.

WEDNESDAY

Compare each pair of numbers using <, > or =

$\sqrt{15} \bigcirc 3\dfrac{1}{3}$	$\sqrt{9} \bigcirc \pi$	$-2.1 \bigcirc -\sqrt{4}$

THURSDAY

Find the distance between (-4,-8) and (6,5).

FRIDAY

Show whether the triangle is a right triangle or not.
18, 80, 81

Name: _____

Scatter Diagram

A group of 66 students took two tests, Test A and Test B. In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

1. The mean score for Test A was 19 and the mean score for Test B was 16. Plot a point to show this on the scatter diagram.

Scores in Test A and Test B
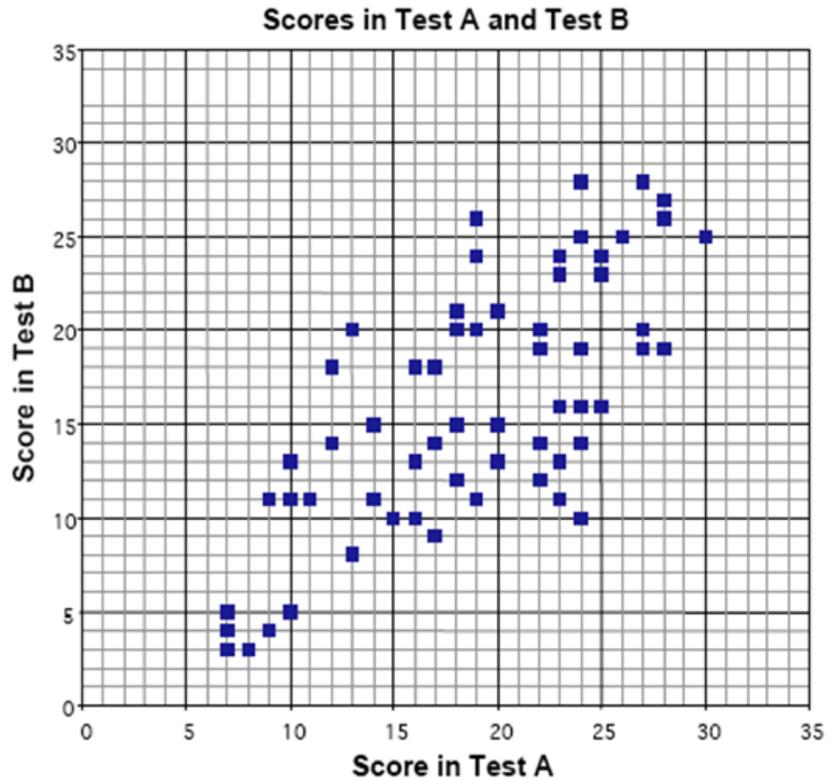
2. Draw a line of best fit on the scatter diagram.
   How can a line of best fit be used?

   _____

   _____

3. If another student took Test A and scored 33, what would you expect her to score on Test B? Explain how you determined your answer.

4. Here are five statements about the scores shown on the scatter diagram. If a statement is true check (√) it. If it is not true, write a correct statement.

Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	
The lowest score on Test A is lower than the lowest score for Test B.	
The range of scores on Test B is 25.	
The student with the highest score on Test A also has the highest score on Test B.	
The biggest difference between a student's scores on the test tests is 5.	