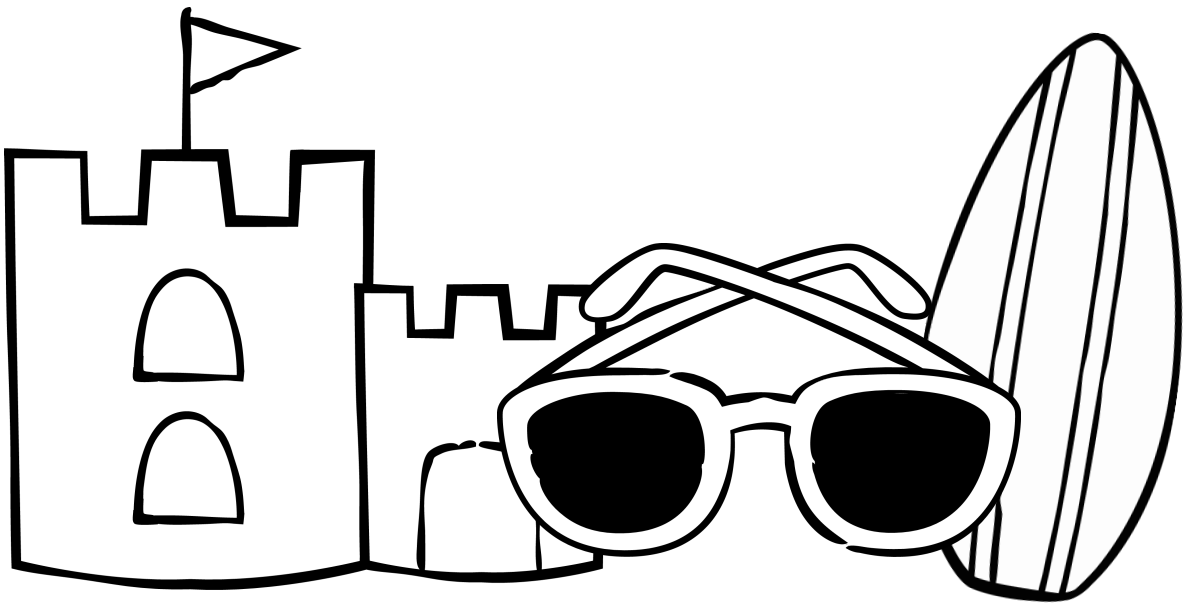
8TH GRADE MATH

Summer Review Packet

NAME: _____



Name: _____

SUMMER MATH REVIEW Week one

MONDAY

Evaluate each expression:

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

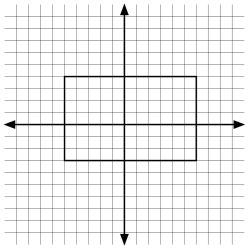
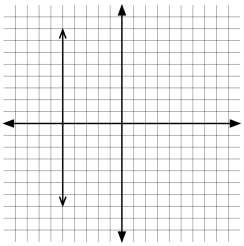
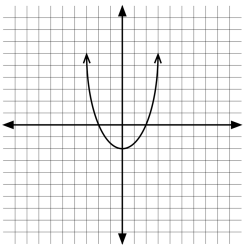
TUESDAY

Write each number in standard form:

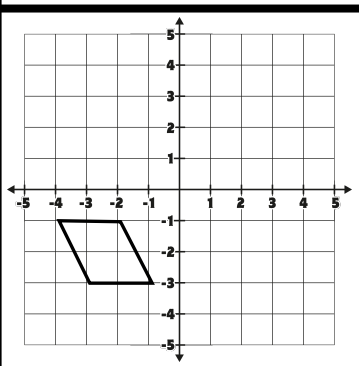
4.5×10^{-4} 3.12×10^{9}

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.

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

Name: _____

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:

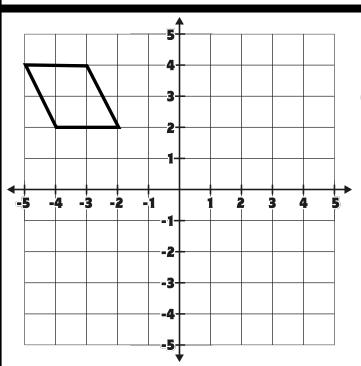
$3,400,000$ 0.000000521

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.

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

Name: _____

SUMMER MATH REVIEW Week Three

MONDAY

Simplify each expression:

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

TUESDAY

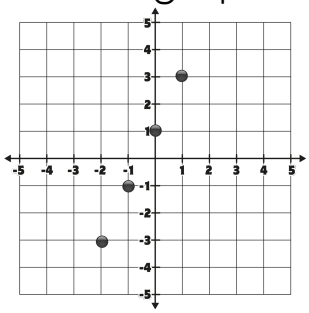
Evaluate each expression:

$2.3\times10^5 + 4.1\times10^5$

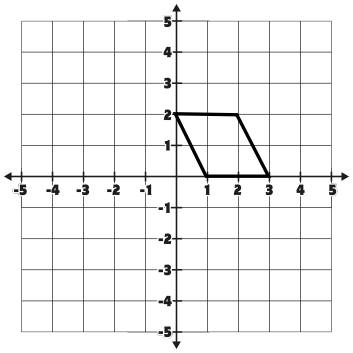
$2 \times 10^9 - 8 \times 10^5$

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.

$-2(5x + 3) = -36$

$9(-3x - 10) = -495$

Name: _____

SUMMER MATH REVIEW Week Four

MONDAY

Simplify each expression:

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

TUESDAY

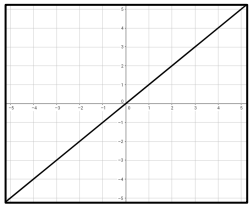
Evaluate each expression:

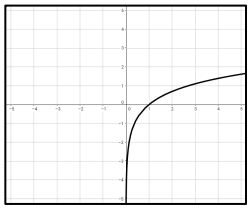
$(2 \times 10^2)(6 \times 10^3)$

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

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.

$-3x + 14 - 4x = 5x - 9x - 4$

Name: _____

SUMMER MATH REVIEW Week Five

MONDAY

Simplify each expression:

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

TUESDAY

Evaluate each expression:

$(8.1\times10^4) \div (2.7\times10^{-2})$

$$\frac{9\times10^5}{3\times10^3}$$

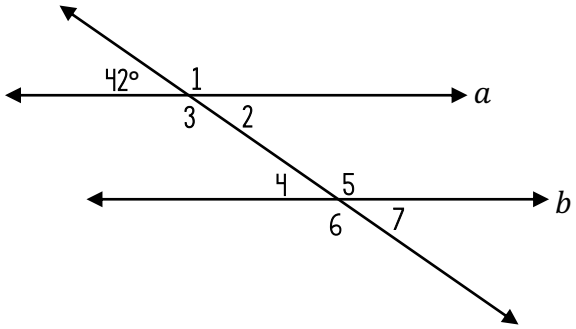
WEDNESDAY

Classify each number as rational or irrational.

$\sqrt{32}$	$-\frac{1}{3}$	$\pi + 2$
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

$-3y + 6x = 24$

$z + 4x - 2y = 9z$

Name: _____

SUMMER MATH REVIEW *Week Six*

MONDAY

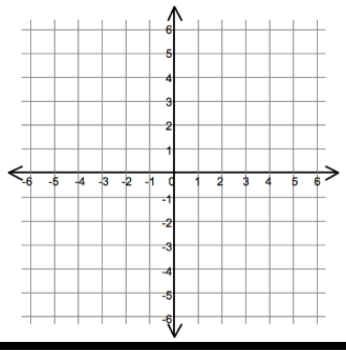
Simplify each expression:

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)



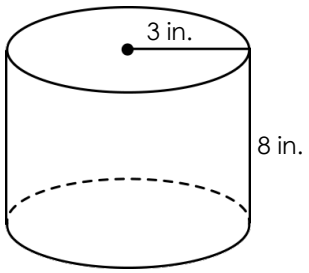
WEDNESDAY

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:



FRIDAY

How many solutions does each equation have? Show all work

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

Name: _____

SUMMER MATH REVIEW Week Seven

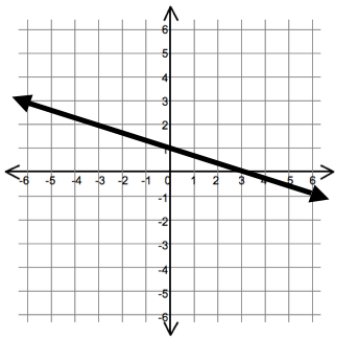
MONDAY

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:



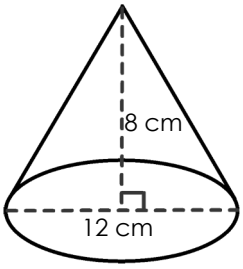
WEDNESDAY

Write each fraction as a decimal.

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

THURSDAY

Find the volume of the cone below:



FRIDAY

Solve the systems of equations. Show all work.

$$\begin{cases} x + y = 8 \\ x - y = 4 \end{cases}$$

Name: _____

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*.

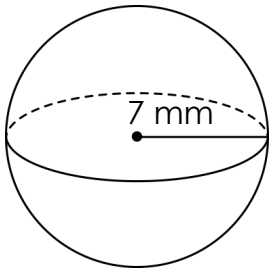
$5y = x$	$\frac{1}{3}y = x$	$2 + 2y = x$

WEDNESDAY

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

THURSDAY

Find the volume of the sphere below:



FRIDAY

Solve the systems of equations. Show all work.

$$\begin{cases} x + 2y = 6 \\ x - y = 3 \end{cases}$$

Name: _____

SUMMER MATH REVIEW Week Nine

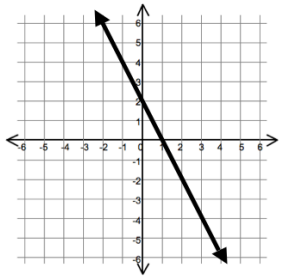
MONDAY

Evaluate each expression.

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

TUESDAY

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



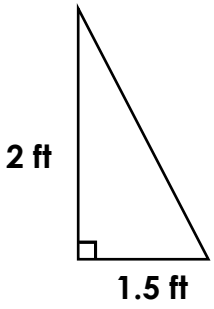
WEDNESDAY

Compare each pair of numbers using <, > or =

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

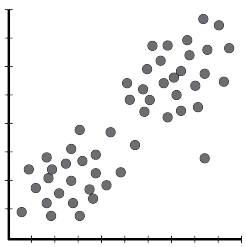
THURSDAY

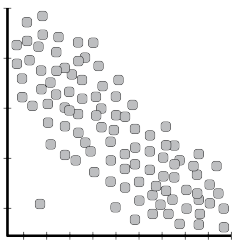
Find the length of the missing side. Show all work.



FRIDAY

Identify the relationship between the data sets.





Name: _____

SUMMER MATH REVIEW Week Ten

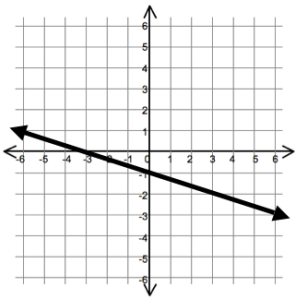
MONDAY

Evaluate each expression.

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

TUESDAY

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



WEDNESDAY

Compare each pair of numbers using <, > or =

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

THURSDAY

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

FRIDAY

Show whether the triangle is a right triangle or not.

18, 80, 81