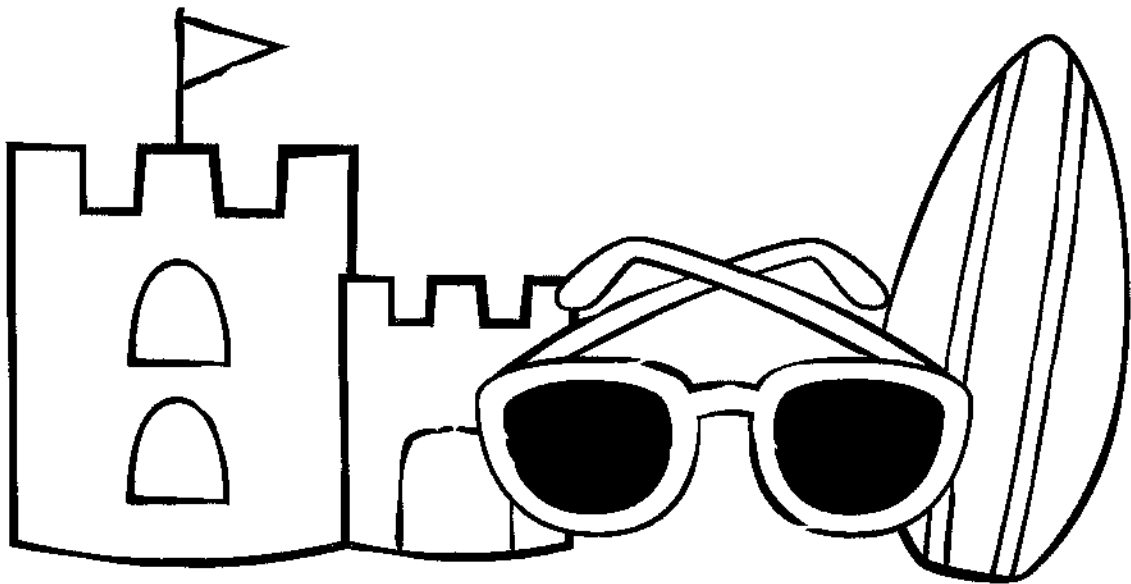


8<sup>TH</sup> GRADE  
MATH

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

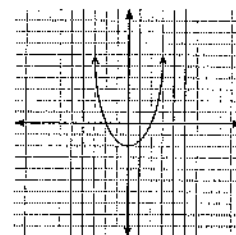
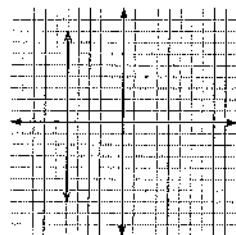
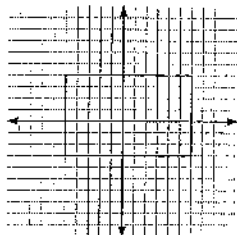
Write each number in standard form:

$$4.5 \times 10^{-4}$$

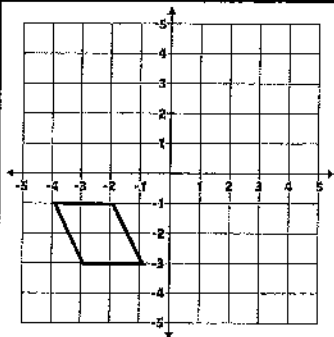
$$3.12 \times 10^9$$

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.

$$-5x = 2.25$$

$$-42 = x - 31$$

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**

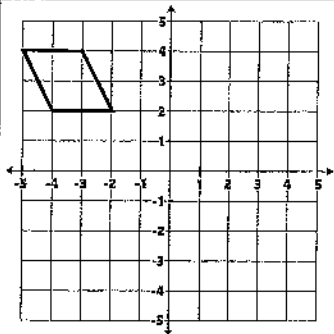
**0.000000521**

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

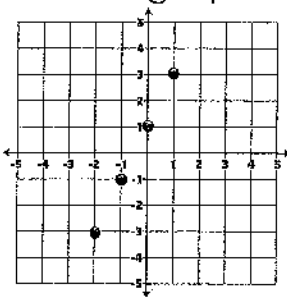
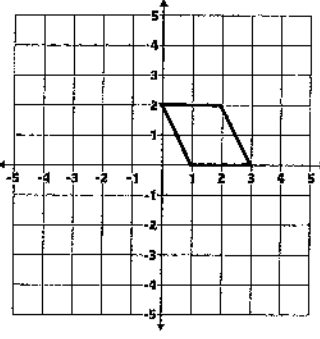
Solve each equation. Show all of your work.

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

$$-7x - x = -73.6$$

Name: \_\_\_\_\_

# SUMMER MATH REVIEW *Week Three*

|                                     |  |                                     |                                 |                   |
|-------------------------------------|--|-------------------------------------|---------------------------------|-------------------|
| MONDAY                              | <p>Simplify each expression:</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;"><math>x^6 \div x^3</math></td> <td style="width: 33%;"><math>h^7 \div h</math></td> <td style="width: 33%;"><math>\frac{b^8}{b^7}</math></td> </tr> </table> | $x^6 \div x^3$                      | $h^7 \div h$                    | $\frac{b^8}{b^7}$ |
| $x^6 \div x^3$                      | $h^7 \div h$   | $\frac{b^8}{b^7}$                   |                                 |                   |
| TUESDAY                             | <p>Evaluate each expression:</p> <table style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;"><math>2.3 \times 10^5 + 4.1 \times 10^5</math></td> <td style="width: 50%;"><math>2 \times 10^9 - 8 \times 10^5</math></td> </tr> </table>                              | $2.3 \times 10^5 + 4.1 \times 10^5$ | $2 \times 10^9 - 8 \times 10^5$ |                   |
| $2.3 \times 10^5 + 4.1 \times 10^5$ | $2 \times 10^9 - 8 \times 10^5$  |                                     |                                 |                   |
| WEDNESDAY                           | <p>Use the graph to write a linear function that relates <math>y</math> to <math>x</math></p>    |                                     |                                 |                   |
| THURSDAY                            | <p>Rotate the figure below <math>90^\circ</math> clockwise about the origin. What are the coordinates of the image?</p>   |                                     |                                 |                   |
| FRIDAY                              | <p>Solve each equation. Show all of your work.</p> <table style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;"><math>-2(5x + 3) = -36</math></td> <td style="width: 50%;"><math>9(-3x - 10) = -495</math></td> </tr> </table>  | $-2(5x + 3) = -36$                  | $9(-3x - 10) = -495$            |                   |
| $-2(5x + 3) = -36$                  | $9(-3x - 10) = -495$   |                                     |                                 |                   |

Name: \_\_\_\_\_

# SUMMER MATH REVIEW *Week Four*

MONDAY

Simplify each expression:

$$(-2^3)^4$$

$$(x^4)^9$$

$$(g^2)^7$$

TUESDAY

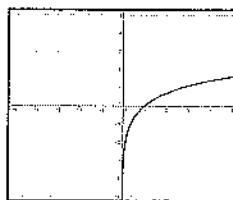
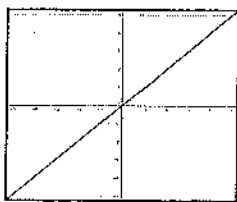
Evaluate each expression:

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

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

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:

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

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

WEDNESDAY

Classify each number as rational or irrational.

$$\sqrt{32}$$

$$-\frac{1}{3}$$

$$\pi + 2$$

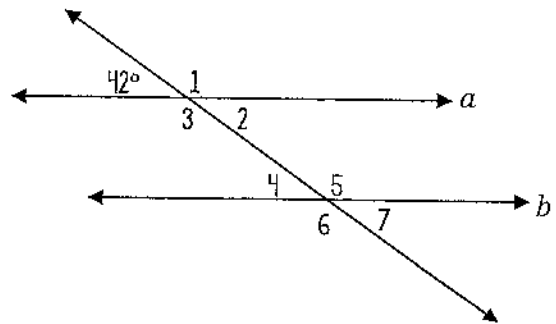
Rational or Irrational

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:

$$6^0$$

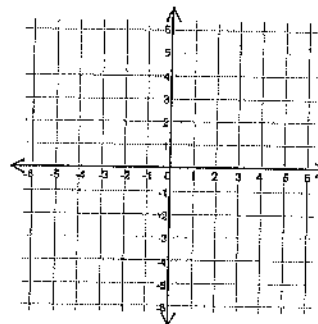
$$b^0$$

$$4^2 \times 4^0$$

TUESDAY

Graph the equation using the table of values.

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



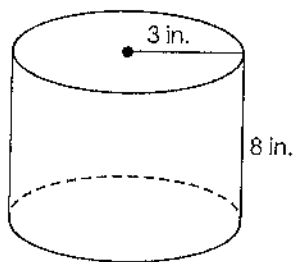
WEDNESDAY

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.

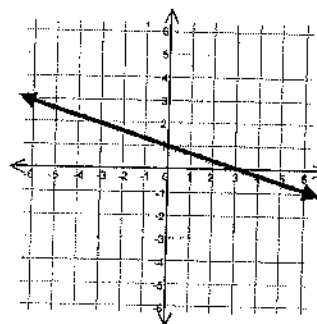
$$x^{-3}$$

$$2b^{-9}$$

$$g^2 \div g^8$$

TUESDAY

Find the slope of the line graphed below:



WEDNESDAY

Write each fraction as a decimal.

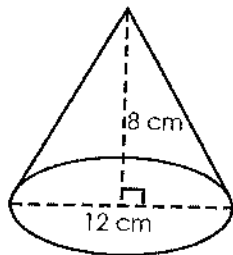
$$\frac{2}{3}$$

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

$$\frac{2}{11}$$

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  $k$ .

$5y = x$

$\frac{1}{3}y = x$

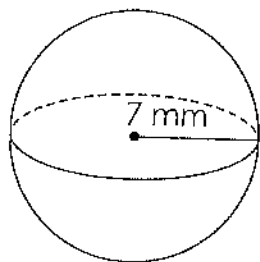
$2 + 2y = x$

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.

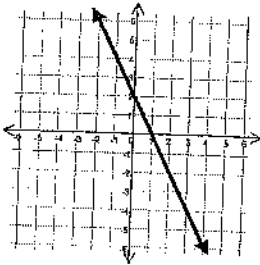
$$\sqrt{121} =$$

$$\pm\sqrt{16} =$$

$$-\sqrt{\frac{4}{25}} =$$

TUESDAY

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



WEDNESDAY

Compare each pair of numbers using  $<$ ,  $>$  or  $=$

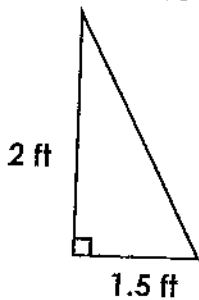
$$\sqrt{8} \bigcirc 2\frac{1}{3}$$

$$-\sqrt{10} \bigcirc -\pi$$

$$-0.25 \bigcirc -\frac{3}{12}$$

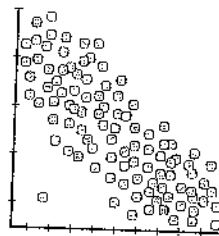
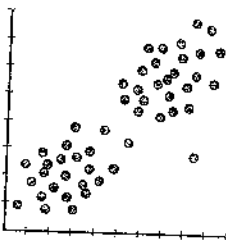
THURSDAY

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.

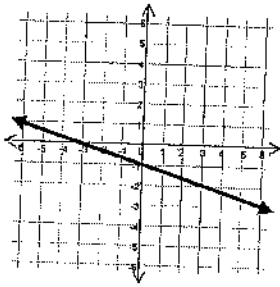
$$\sqrt[3]{-216} =$$

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

$$-\sqrt[3]{-27} =$$

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