

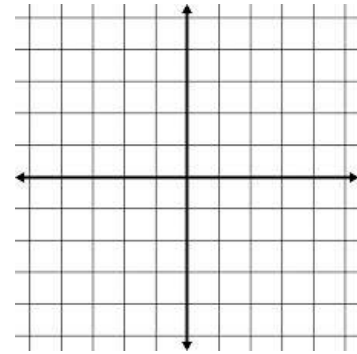
**Tuesday:**

1) Graph the data in the table.

x	-4	0	1	-3	-4
y	5	3	1	3	-4

a. Is it linear or nonlinear?

b. Is it a function? Defend your claim:



2. Evaluate the following expressions:

a.  $-\sqrt{\frac{4}{81}}$

b.  $12 - 2\sqrt{49}$

c.  $(\sqrt{15})^2$

d.  $-3\sqrt{25} + 6\sqrt{16}$

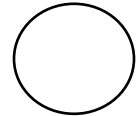
3. Find the dimensions of the square or circle. Mark the side or radius on the diagrams:

a. Area =  $121 \text{ cm}^2$   
side = \_\_\_\_\_



perimeter = \_\_\_\_\_

b. Area =  $81\pi \text{ in}^2$   
radius = \_\_\_\_\_



circumference = \_\_\_\_\_

4. a.  $12\frac{1}{4} - 9\frac{1}{2}$

b.  $1\frac{2}{3} \cdot 2\frac{1}{4}$

c.  $\frac{7}{10} - \frac{3}{4}$

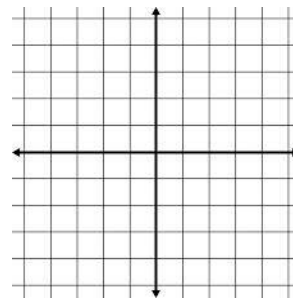
**Wednesday:**

1) Fill in the table of values for the linear function:

x	-3	0	2	-1	3
y	4	-2			

Equation: \_\_\_\_\_

Graph: scale your y axis!



2. What is the side of a cube that has a volume of  $729 \text{ cm}^3$ ? Sketch the cube including its dimensions.

**Wednesday:**

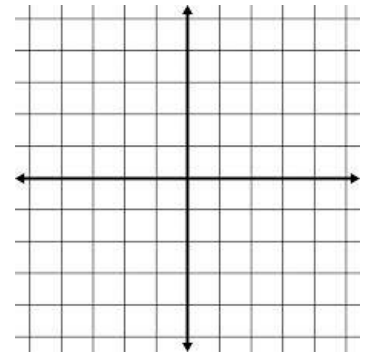
3. Graph the lines using the slope and y-intercept.

a.  $y = -3x - 1$        $m =$        $b =$

b.  $y = -\frac{3}{2}x + 2$        $m =$        $b =$

What is the solution? \_\_\_\_\_

Check your answer algebraically:



4. Evaluate:

a.  $\sqrt[3]{-216}$

b.  $5(\sqrt[3]{27})$

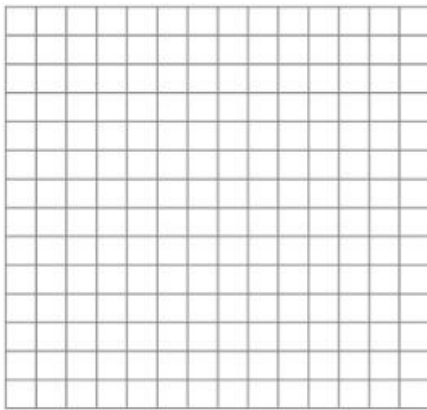
c.  $\sqrt[3]{-\frac{1}{64}}$

d.  $\sqrt{49} - \sqrt[3]{125} + \sqrt{144}$

**Thursday:**

1. You have \$300 in the bank and each week you take out \$40 for spending money.

Graph using appropriate scale:



Rule: \_\_\_\_\_

Interpret the slope in the context of this problem:

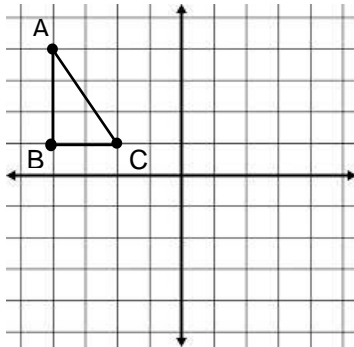
\_\_\_\_\_

Interpret the y-intercept in the context of this problem:

\_\_\_\_\_

In how many weeks will you run out of cash? \_\_\_\_\_

2. Reflect the triangle over the x-axis then rotate 90° counter-clockwise



2<sup>nd</sup> Image Coordinates:

A'': ( , ) B'': ( , ) C'': ( , )

3. Using the digits 1 to 9, at most one time each, create an equation where the **solution** is NEGATIVE.

$$\square X + \square = \square X - \square$$

Show work here:

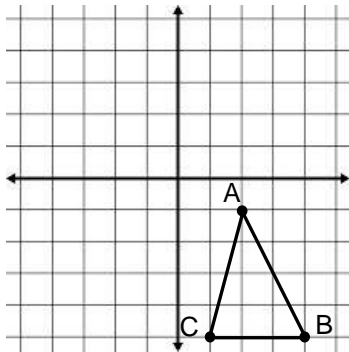
4. Find the volume of a cube with side length 8 cm.

5. Fill in the chart (some of it has been filled in for you):

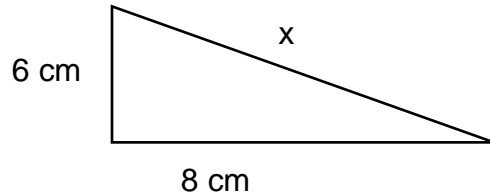
Original form	Factored form (repeated multiplication)	Simplified exponent form
$7^3 \cdot 7^4 \cdot x \cdot x^3$	$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot x \cdot x \cdot x \cdot x$	$7^7 x^4$
$(3^2 x) \cdot (5 x^4)$	$3 \cdot 3 \cdot 5 \cdot x \cdot x \cdot x \cdot x \cdot x$	
$5 \cdot a^5 \cdot a^2 \cdot 4$	$5 \cdot 4 \cdot$	
$2x^3 \cdot 5x \cdot x^3$		

**Friday:**

1. Reflect the figure over the y-axis then translate the image  $(x, y) \rightarrow (x + 1, y + 5)$



2. Find the missing side length using Pythagorean Theorem:



2<sup>nd</sup> Image Coordinates:

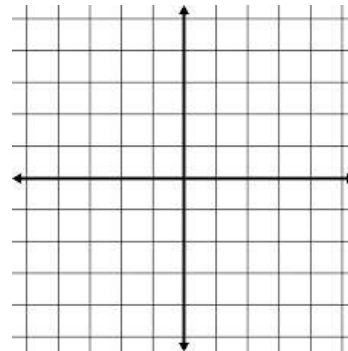
A'': ( , ) B'': ( , ) C'': ( , )

3. Find the equation of a line that passes through the point  $(3, -4)$  and has a slope of  $-2$

Use the table and graph to help find this equation.

a.

x	-1	0	1	2	3
y					-4



4. Find the value of y for the given value of x:

a.  $y = -5x + 8$ ;  $x = -20$

b.  $y = -6 - 21x$ ;  $x = 4$

c.  $y = -2x^2$ ;  $x = -5$

5. Find the slope and y-intercept of this line (isolate y first!!)

$2x - 2y = 8$

$m =$  \_\_\_\_\_

$b =$  \_\_\_\_\_

6. What is the slope of all horizontal lines? \_\_\_\_\_

What is the slope of all vertical lines? \_\_\_\_\_