1pg GLO8FG

1). Circle the values listed below that are irrational:

9/7 $\sqrt{9}$ $\sqrt{4}$

$0.\overline{29}$ 2π $\sqrt{5}$

Explain why they are irrational.

Can't be represented as a fraction

2). Place the values listed below in ascending order:

$(-1/4)^2$, $\sqrt{5}$, $-3/5$, π

$1/5$, $(3)^{-2}$, $(-1)^3$, $\sqrt{9}$

$(-1)^3$, -3/5, $(-1/4)^2$, $(3)^{-2}$, 1/5, $\sqrt{5}$, $\sqrt{9}$, π

3). Fill in the chart below

fraction	decimal	percent
7/4	**1.75**	**175%**
1/3	$0.\overline{3}$	**$33^1/_3$%**
21/10	**2.1**	210%
1/8	**0.125**	**12.5%**
2/9	$0.\overline{2}$	**$22^2/_9$%**
9/1000	**0.009**	0.90%

4). Compare using <, >, =

π __<___ 12/3

7.0 __>___ $0.\overline{7}$

1/2 __>___ 0.200

2^{-3} __=___ 1/8

5). Simplify using exponents:

$4^3 \times 4^3 =$ **4^6**

$5^5 \div 5^{-2} =$ **5^7**

6). Write the standard numerical value for:

$7.02 \times 10^7 =$ **70,200,000**

6). Continued

$0.75 \times 10^{-6} =$ **0.00000075**

The estimated the population of the earth in 1900 was 1.65 billion people. Express this population using scientific notation.

1.65×10^9

7). Complete the chart

X	**Y**
1	4
2	6
3	8
-2	-2
4	**10**
-3	-4

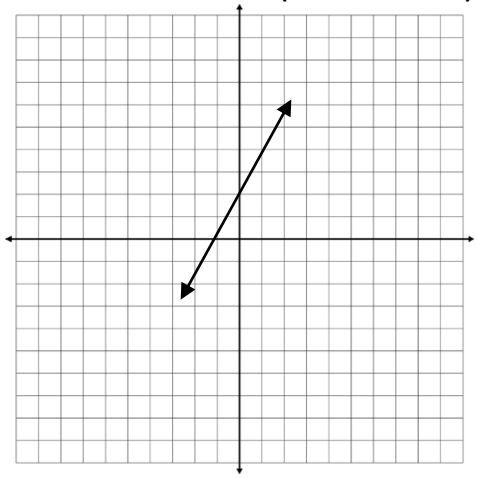
Write an equation that describes the relationship.

Y = 2X + 2

Graph the equation on the grid below. What is the slope of the line?

Slope = 2

Does this graph define a function – explain why or why not. **Yes, only 1 y-value for each x-value (vertical line test)**



8). On the same grid above, also sketch a graph that is not a function and label this graph **A**.

Various

KEY

Name

9). Write an equation that has:

a) one solution

various **ex: 4= x + 1**

b) no solutions

various **ex: x = x + 1**

c) infinite solutions

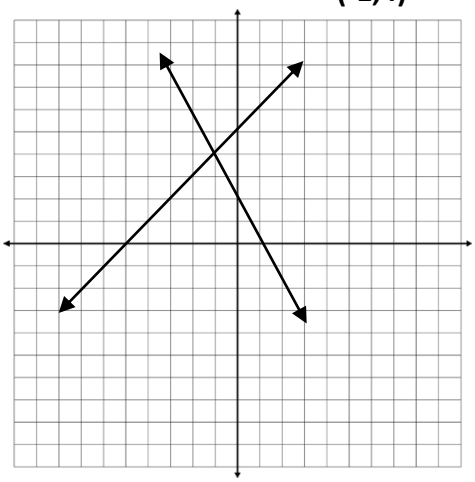
various **ex: 2x = x + x**

10). Solve and graph the pair of simultaneous linear equations:

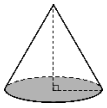
X - Y = -5

2X + Y = 2

(-1,4)

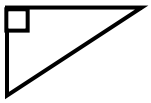


11). The cone shown below has a radius of 3 cm and height of 6 cm. Find the volume in terms of pi.



$V = 18\pi$ cm^3

12). The legs in the triangle below measure 3cm and 4cm. Find the length of the hypotenuse.



5 cm

13). Explain the difference between similarity and congruence.

Same shape; same size & same shape

14). Point A has coordinates of (2,7). Give the coordinates after this point has been reflected over the x axis.

(2,-7)