

AMI Packet

Questions:

1. What is a gallery walk? A gallery walk is a poster that, when done correctly, shows information about specific topics.
2. Is a gallery walk a poster? Yes, it should look just like an informational poster.
3. What do I include on a gallery walk? Definitions, descriptions, examples, pictures, or words that describe the topics.
4. Should I color the gallery walk poster? It would be a good idea, but is NOT REQUIRED!
5. Should this be created on a big poster? NOOOO!!! The 8x11 blank pieces of paper included in this packet are for the posters! They should be mini-posters.

AMI Days 6-10

Day 6	Gallery Walk Topics : Area, Perimeter, Surface Area, Volume Day 6 WS
Day 7	Gallery Walk Topics: GCF, LCM, Factor Trees, Integers, Absolute Value Day 7 WS
Day 8	Gallery Walk Topics: Graphing, Inequalities Day 8 WS
Day 9	Gallery Walk Topics: Graphing Equations, Functions Day 9 WS
Day 10	Gallery Walk Topics: Decimals, Fractions, Percents, Measurement Day 10 WS

Turn this page over to see an example based on Mean, Median, Mode, and Range!

Mean, Median, Mode, Range

Data Set: 1, 3, 3, 5, 7, 7, 7, 9

Mean: * Add all up & divide by # in data

$$1 + 3 + 3 + 5 + 7 + 7 + 7 + 9 = 42 \div 8 = 5.25$$

* Mean is the average

Median: * Put all numbers in order

1 3 3 5 7 7 7 9

$$5 + 7 = 12 \div 2 = 6$$

Median is the middle

Mode: * Number that occurs most

7

Range: * largest number minus the smallest number

$$9 - 1 = 8$$

Ratios

1:3
Ratio

X	1	2	3	4	5
Y	3	6	9	12	15

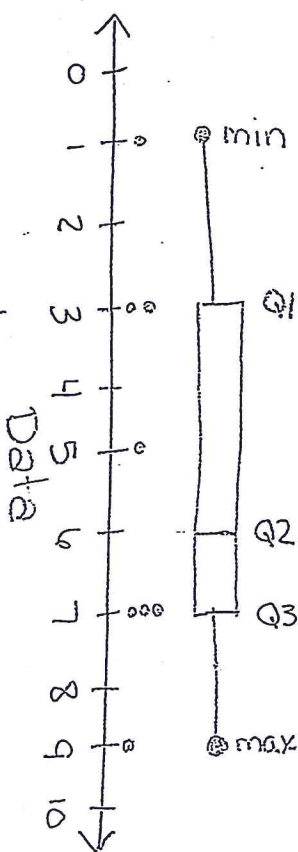
* look for patterns

* look for multiples

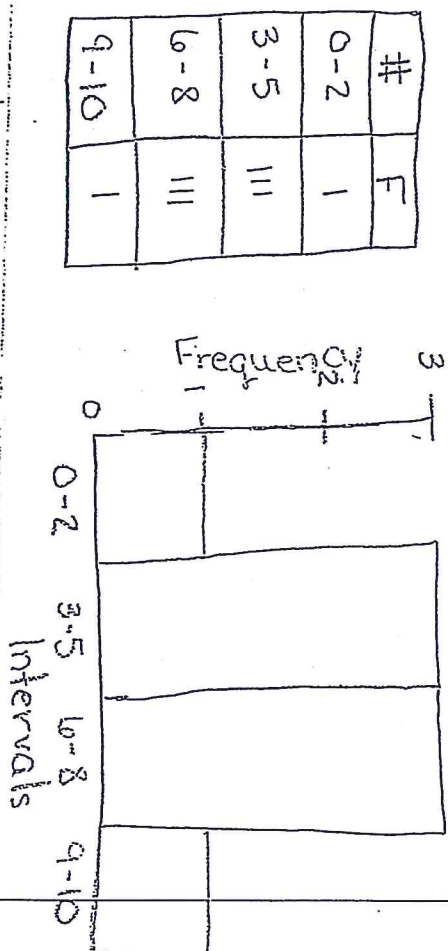
Graphs

Data Set: 1, 3, 3, 5, 7, 7, 7, 9

Dot Plot & Box Plot



Histogram



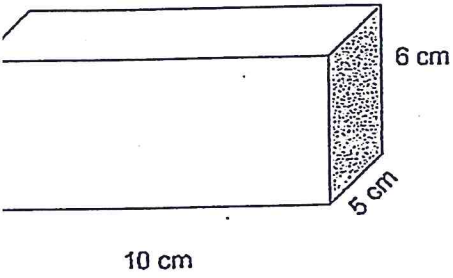
Unit Rates

Rate or price for 1 unit of anything

\$2.50 /

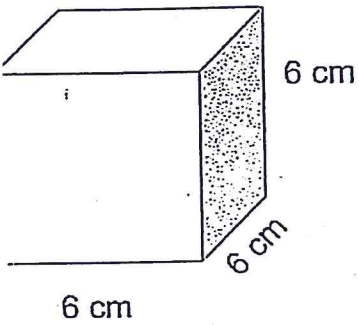
Name: _____

Gallery Walk #6



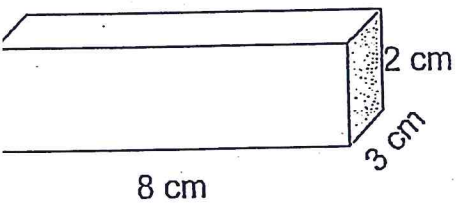
Surface Area: _____

Volume: _____



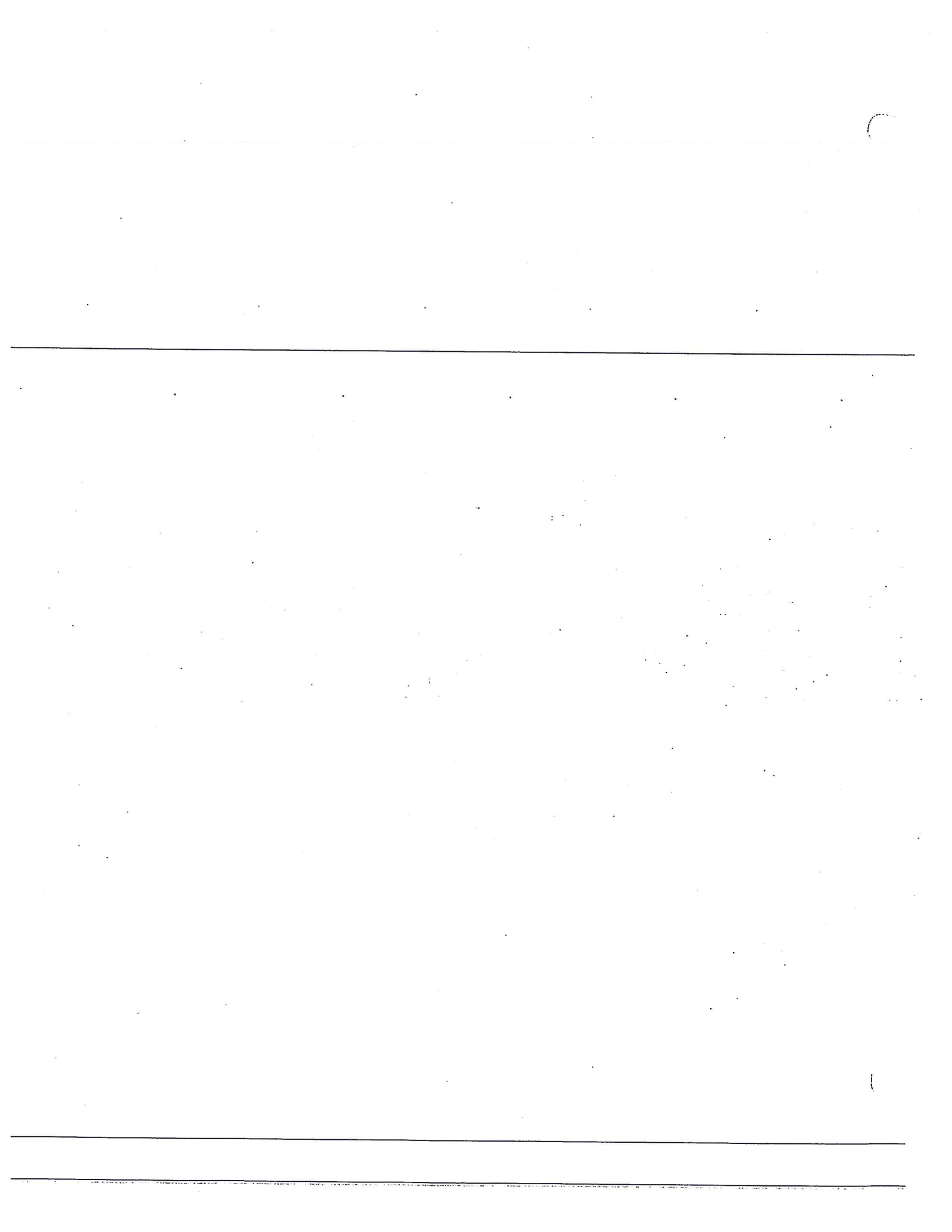
Surface Area: _____

Volume: _____



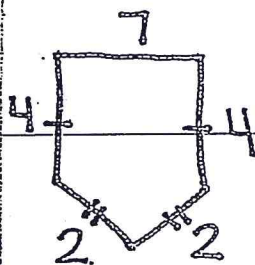
Surface Area: _____

Volume: _____

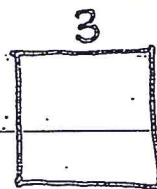


Area & Perimeter

Perimeter: the distance around the outside of an object.



$$P = 19u$$

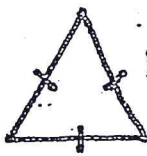


$$P = 5 + 5 + 3 + 3$$

$$P = 2L + 2W$$

$$2(5) + 2(3)$$

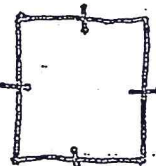
$$P = 16u$$



$$P = a + b + c$$

$$P = 10 + 10 + 10$$

$$P = 30u$$

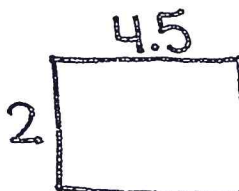


$$P = 4s$$

$$P = 4 \cdot 4$$

$$P = 16u$$

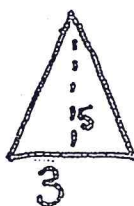
Area: the amount of square units to fill the inside of an object.



$$A = b \cdot h$$

$$A = 4.5 \times 2$$

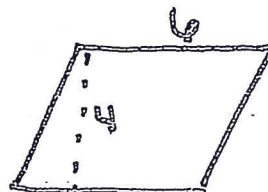
$$A = 9u^2$$



$$A = \frac{1}{2}BH$$

$$A = \frac{1}{2}(3)(5)$$

$$A = 7.5u^2$$



$$A = BH$$

$$A = 6 \cdot 4$$

$$A = 24u^2$$

Two Dimensional (2D)

Circumference = πd

Area (rectangle) = bh

Area (parallelogram) = bh

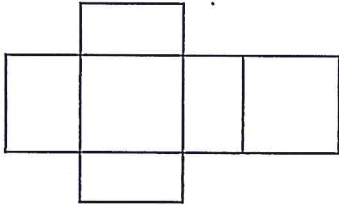
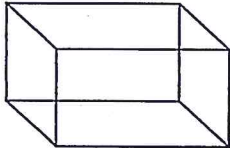
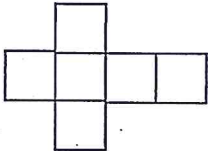
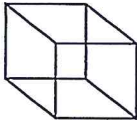
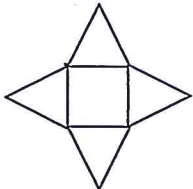
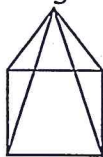
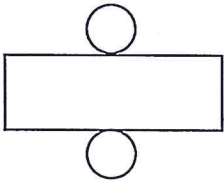
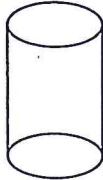
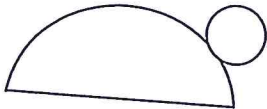
Area (triangle) = $\frac{1}{2}bh$

Area (circle) = πr^2

Three Dimensional (3D)

BIG B=area of the base

little b=base of a triangle

<u>Geometric Shape</u>	<u>Surface Area</u> (units squared)	<u>Volume</u> (units cubed)
Rectangular prism	$SA = 2lw + 2lh + 2wh$ 	$V = Bh$ 
Cube	$SA = 6s^2$ 	$V = s^3$ 
Rectangular/square pyramid	$SA = lw + 4(\frac{1}{2}bh)$ 	$V = \frac{1}{3}Bh$ 
Cylinder	$SA = 2\pi r^2 + 2\pi rh$ 	$V = Bh$ 
Cone	$SA = \pi r^2 + \pi rl$ 	$V = \frac{1}{3}Bh$ 

Formula Sheet

Name: _____

Gallery Walk #7

GCF & LCM

2 & 5	10 & 35	100 & 50
GCF: _____	GCF: _____	GCF: _____
LCM: _____	LCM: _____	LCM: _____
8 & 36	14 & 112	200 & 500
GCF: _____	GCF: _____	GCF: _____
LCM: _____	LCM: _____	LCM: _____

Factor Trees

15	45
----	----

100

550

Integers

1) $72 - 34 =$

2) $-45 \times -51 =$

3) $97 + 47 =$

4) $-22 + -97 =$

5) $58 + 12 =$

6) $97 + 71 =$

7) $-50 \times -20 =$

8) $25 \times 23 =$

9) $79 + 15 =$

10) $19 \times 52 =$

11) $98 - 70 =$

12) $89 - 47 =$

Absolute Value:

1. $|-2| =$

6. $|12| =$

2. $|-3| =$

7. $|-42| =$

3. $|-8| =$

8. $|23| =$

4. $|-10| =$

9. $|40| =$

5. $|-22| =$

10. $|9| =$

GCF & LCM

numbers
mult.
together
to get a
certain
number

F
Factors
* Fewer *

M
Multiples
* more *

* Find the GCF of 36 and 54

36: 1, 2, 3, 4, 6, 9, 12, 18, 36

54: 1, 2, 3, 6, 9, 18, 27, 54

GCF: 18

* When two numbers share a factor,
that factor is called a common factor.

* GCF: the largest factor shared by 2
or more numbers.

* Find the LCM of 3 & 4

3: 3, 6, 9, 12, 15, 18, 21, 24

4: 4, 8, 12, 16, 20

LCM: 12

* the smallest multiple shared by
2 or more numbers

Absolute Value

→ distance an integer is from Zero

$$|3| = 3$$

$$|-3| = 3$$

examples:

$$|10| = 10$$

$$|4| = 4$$

$$|-2| = 2$$

$$|-6| = 6$$

$$-|4| = -4$$

$$-|-10| = -10$$

Opposite

→ two integers are opposite if they are the same distance from zero

* the sum of two opposites is zero *

$$-6 + 6 = 0$$

$$10 + -10 = 0$$

$$-5 + 5 = 0$$

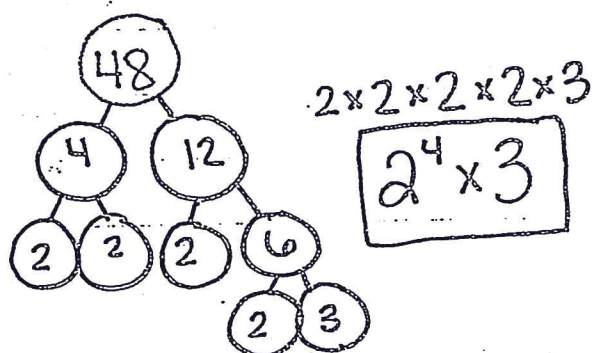
$$12 + -12 = 0$$

Factor Trees & Ladders

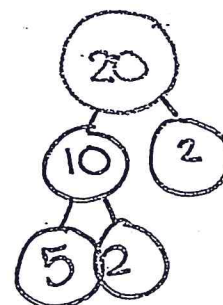
* tool used to break down any number into its prime factors

* Prime Factors are prime numbers that can be multiplied together to give the original number

Factor Tree



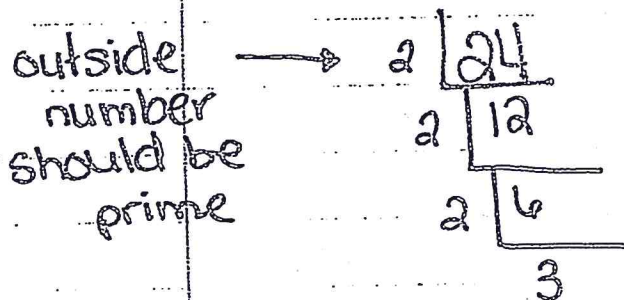
prime: a number greater than 1 whose only factors are 1 and itself



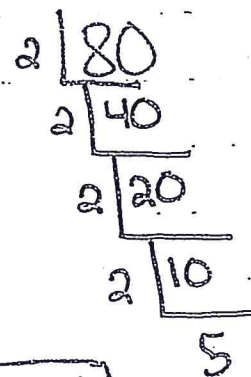
$2 \times 2 \times 5$

$2^2 \times 5$

Factor Ladder



$2^3 \times 3$



$2^4 \times 5^1$

Integers

* Numbers to the right of zero
are POSITIVE

* Numbers to the left of zero
are NEGATIVE

— Order from Least to Greatest —

-9, 0, 5, -3

-9, -3, 0, 5

5, -5, 6, -6

-6, -5, 5, 6

3, -3, 0, 10, -1

-3, -1, 0, 3, 10

loss of \$5

-5

gain of \$10

10

deposit of \$26

26

withdrawal of \$12

-12

7° below zero

-7

credit of \$12

12

\$25 profit

25

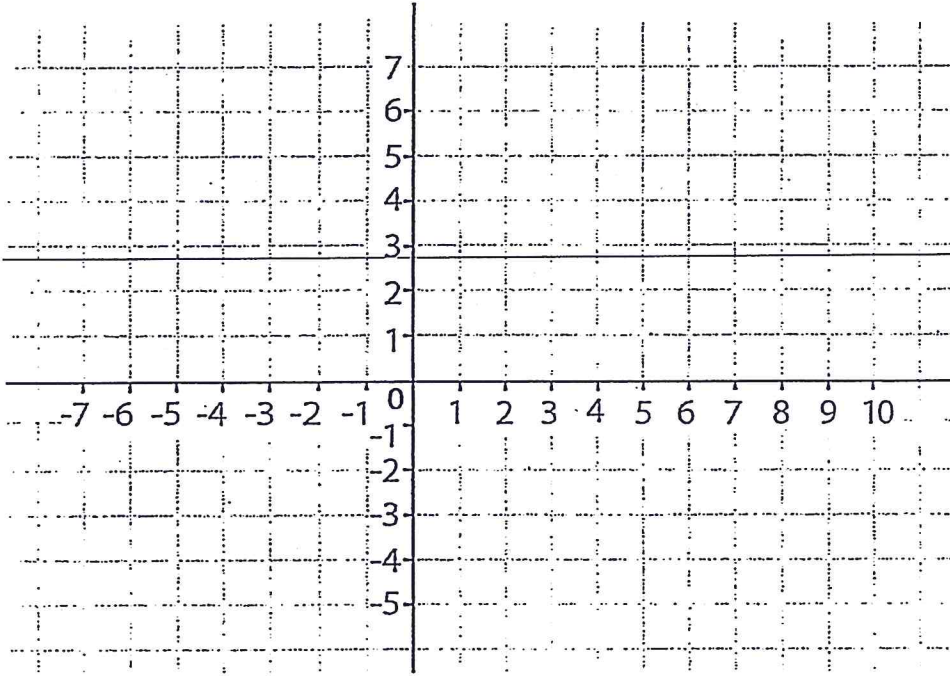
loss of 10 yards

-10

Name: _____

Gallery Walk #8

Graphing



Graph and label the following points. Write the Quadrant on the line. On the graph, label the X & Y axis and the point of origin with a star.

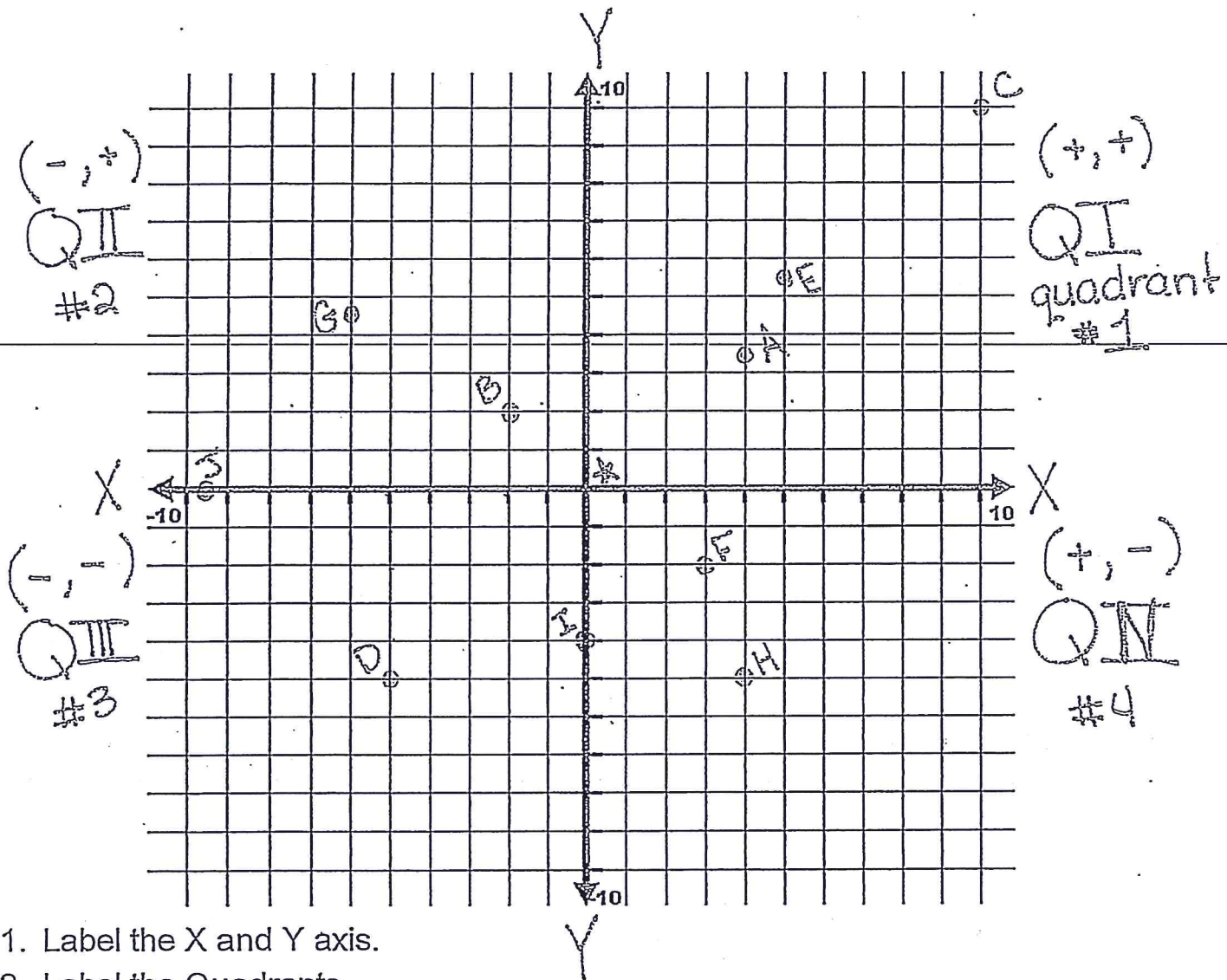
- | | |
|-----------------|------------------|
| A (3, 4) _____ | E (-4, -5) _____ |
| B (7, -2) _____ | F (0, 3) _____ |
| C (-5, 3) _____ | G (9, 1) _____ |
| D (-5, 0) _____ | H (-4, 0) _____ |

Inequalities

- | | |
|-------------|-------------|
| 1. $X > 5$ | 3. $X = 9$ |
| 2. $X < -2$ | 4. $X > -6$ |
- _____
- _____

Name: Yuey

Graphing Points On a Grid



1. Label the X and Y axis.
2. Label the Quadrants
3. Label the origin with a star.
4. Label the following coordinates on the graph (use the letter to label): (X, Y)

A. 4, 3.5

B. -2, 2

C. 10, 10

D. -5, -5

E. 5, 5.5

F. 3, -2

G. -6, 4.5

H. 4, -5

I. 0, -4

J. -9.5, 0

Inequalities

Symbols:

$<$ less than

$>$ greater than

$\leq$ less than or equal to

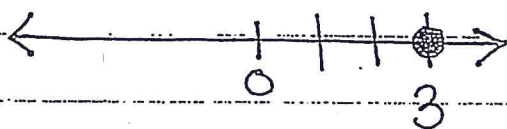
$\geq$ greater than or equal to

Graphing

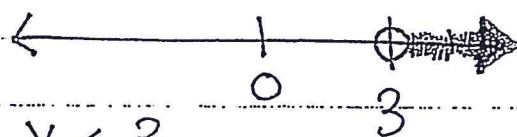
- not equal to
- equal to

Examples

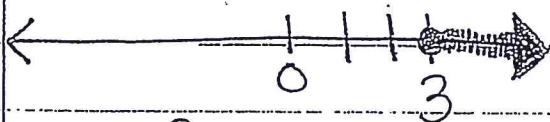
$$x = 3$$



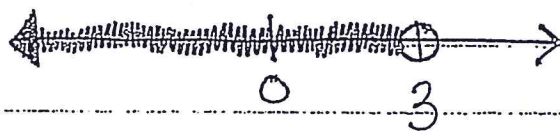
$$x > 3$$



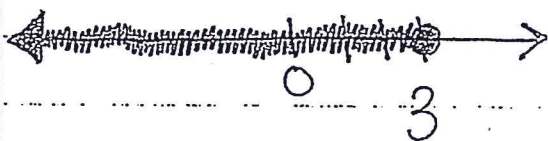
$$x \geq 3$$



$$x < 3$$

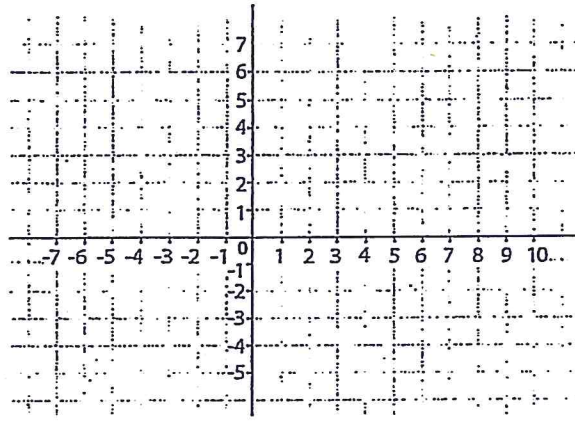
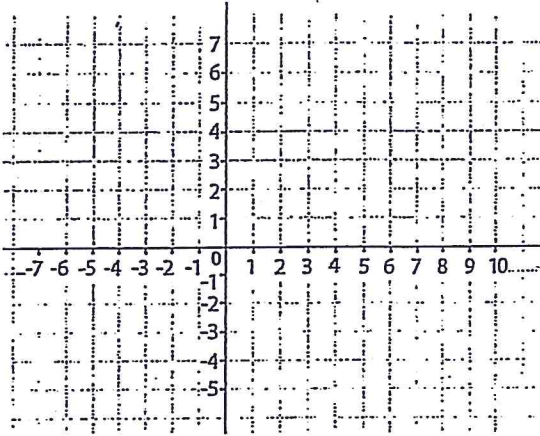


$$x \leq 3$$



Name: _____

Gallery Walk #9



Graph the following points in the table using the equation:

$$y = 2x - 3$$

X	Y
-1	
0	
1	
2	
3	

Graph the following points in the table using the equation:

$$y = x + 5$$

X	Y
-3	
-1	
1	
3	
5	

1)

Input (g)	Output (h)
10	40
2	8
7	28
9	36
4	16

2)

Input (m)	Output (n)
21	4
18	1
19	2
106	89
96	79

3)

Input (o)	Output (p)
20	14
37	31
10	4
67	61
92	86

4)

Input (m)	Output (n)
4	24
1	21
10	30
60	80
37	57

5)

Input (y)	Output (z)
18	6
6	2
27	9
21	7
15	5

6)

Input (e)	Output (f)
7	42
9	54
6	36
2	12
3	18

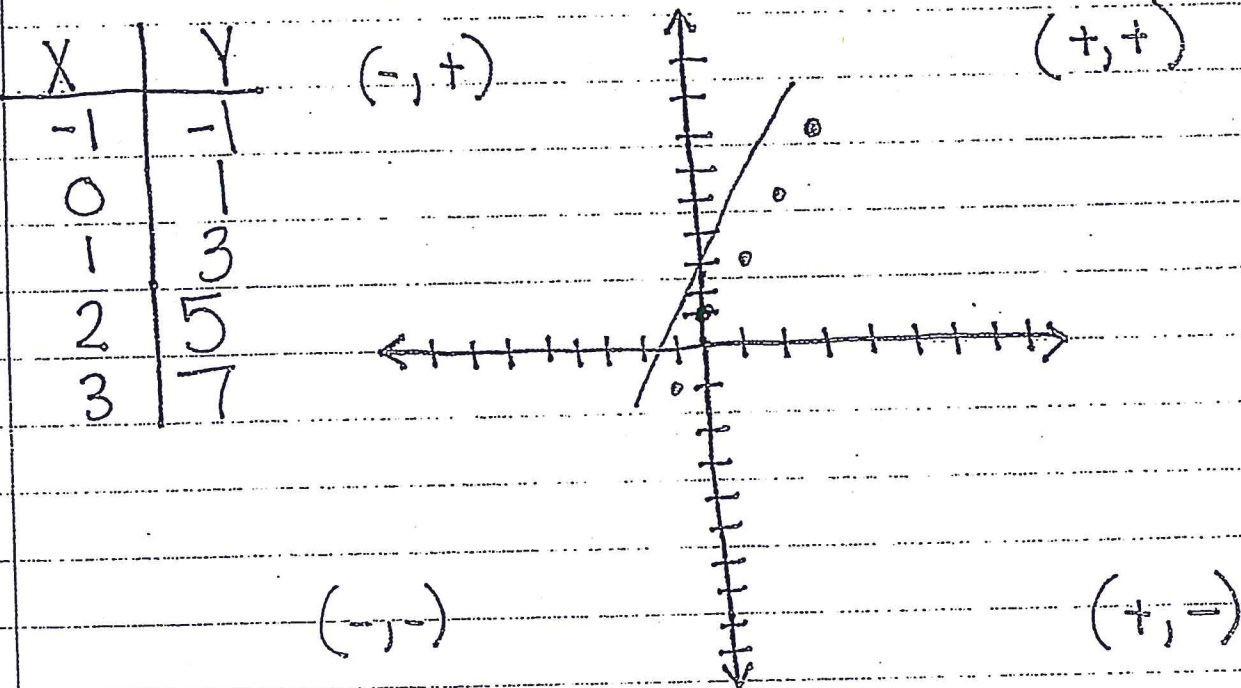
Graphing Equations

① Construct a table by plugging in X or Y values into the equation.

② solve

③ the X and Y values are

Example: $y = 2x + 1$



* Intersect $\rightarrow$ crosses X or Y axis

① Where does the line intersect the Y-axis? $(0,1)$

* X and Y are equal if?

- the ~~coord~~ coordinates are the same

Functions

Function Table $\rightarrow$ rule that assigns a set of inputs to a set of outputs

①

X	Y
0	2
1	4
2	6
3	8
4	10
5	12

② $y = 3x - 2$

X	Y
0	-2
1	1
2	4
3	7
4	10
5	13

③

X	Y
9	5
12	8
15	11
18	14

A. $Y = x - 4$

~~B. $Y = x + 4$~~

~~C. $x = y$~~

~~D. $Y = 2x + 4$~~

Input	Output
X	Y

④ Show the equation

X	Y
4	1
5	2
10	7
14	11
15	12

Rule: sub. 3

Equation:

$$x - 3 = y$$

X	Y
3	5
6	8
9	11
12	14
15	17

Rule: add 2

Equation:

$$x + 2 = y$$

Name: _____

Gallery Walk #10

Directions: Fill in the table. Simplify any fractions.

Fractions	Decimals	Percents
	.45	
$\frac{3}{5}$		
		88%
	.5	
$3\frac{2}{5}$		
		22%
	1.2	

Convert the given measures to new units.

1. 3,072 c = _____ gal 2. 1,792 c = _____ gal

3. 26 yd = _____ ft 4. 19 t = _____ oz

5. 42 lb = _____ oz 6. 1,760 yd = _____ mi

7. 90 qt = _____ pt 8. 153 gal = _____ fl oz

9. 35 t = _____ oz 10. 11 mi = _____ yd

11. 32,000 oz = _____ t 12. 165 gal = _____ pt

13. 58 t = _____ oz 14. 199 mi = _____ yd

15. 193 pt = _____ c 16. 112 pt = _____ c

17. 2,000 lb = _____ t 18. 5,120 fl oz = _____ qt

Fractions, Decimals, Percents

* 3 ways to write parts of a whole!

Percent means
"out of 100"

decimals are
tenths or
hundredths

Fraction $\rightarrow$ Decimal

* divide numerator by denominator

Ex: $\frac{1}{4} \rightarrow .25$

Decimal $\rightarrow$ Percent

* Multiply by 100

Ex: $.18 \times 100 = 18\%$

$.18 \times 10 = 1.8$

$.18 \times 100 = 18$

$.18 \times 1000 = 180$

Percent $\rightarrow$ Decimal

* divide by 100

Ex: $18\% \div 100 =$

$.18$ $\textcircled{.18}$

$250\% \div 100 = 2.5$

Percent $\rightarrow$ Fraction

* Write percent over 100

Ex: $55\% = \frac{55}{100} = \frac{11}{20}$

Measurement

- length - distance from one point to another point

Unit: inches, feet
yards, miles

- Volume - maximum amount an object will hold

Unit: cups, pints,
quarts, gallons

- Weight - a measure of how heavy an object is.

Unit: ounces, pounds
tons

Conversions

$$1 \text{ inch} = \underline{2.54} \text{ cm}$$

$$1 \text{ foot} = \underline{12} \text{ inches} = \underline{30.48} \text{ cm}$$

$$1 \text{ yard} = \underline{3} \text{ feet} = \underline{36} \text{ inches} = \underline{91.44} \text{ cm}$$

$$1 \text{ mile} = \underline{1,760} \text{ yards} = \underline{5,280} \text{ feet}$$

LENGTH

VOLUME

1 cup = 8 oz

1 pint = 2 cups = 16 oz

1 quart = 2 pints = 4 cups = 32 oz

1 gallon = 4 quarts = 128 oz

WEIGHT

1 pound = 16 oz

1 ton = 2,000 pounds = 32,000 oz

