

BE-1B TUESDAY 9-4-07

- ① WHAT IS THE MEAN, MEDIAN, AND MODE OF $\{3, 4, 9, 7, 3, 9, 3\}$
- ② A painter can paint 20 square feet in 60 minutes. At this rate, how long will it take to paint 130 square feet?
- ③ In geometry, what does $m\angle X$ mean? If you don't know, where can you look?
- ④ If $m\angle 1$ is twice $m\angle 2$, what is $m\angle 1$?



~~~~~ ANSWER WB ~~~~~

① Pg 78 # 2 (mode)

② Pg 84 # 5

③ Ref. Page

④ Pg 66 # 3

## Ch. 4-1 The Coordinate Plane

$\uparrow$   $\uparrow$   
X-Y PLANE flat SURFACE

A.K.A. the Cartesian Coordinate Plane

$\uparrow$   
Des Cartes "day cart"

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Review terms ; graphing points

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## Ch. 4-2 Geometry terms

(see pg 197)  $\Rightarrow$

- reflect
- translate
- dilate
- rotate

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Ch 4-3 Relations  $\Rightarrow$  A set of ordered pairs  
Ways to picture : table, graph, mapping.

INVERSE OF } SWAP THE X AND Y'S  
A RELATION }

## Ch. 4-4 EQUATIONS AS RELATIONS

EX) Graph (find the x-y pairs) the equation  $4x + 2y = 10$  for the domain  $\{-1, 0, 2, 4\}$

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NOTE: USUALLY WHEN YOU WORK WITH AN EQUATION in algebra the domain will be "all real numbers"

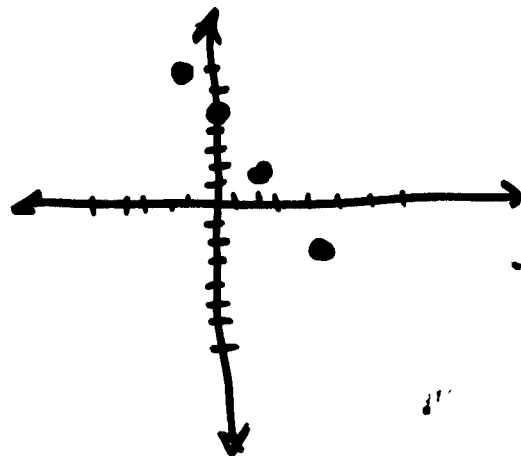
Step 1  $\Rightarrow$  Solve for  $y$

Step 2  $\Rightarrow$  use the pick an  $x$ , find a  $y$  t-table (in this case 4 of them)

$$\begin{array}{r} 4x + 2y = 10 \\ -4x \quad \quad -4x \end{array}$$

$$\frac{2y}{2} = \frac{-4x + 10}{2} = -2x + 5 = y$$

| $x$ | $-2x + 5 = y$    |
|-----|------------------|
| -1  | $-2(-1) + 5 = 7$ |
| 0   | $-2(0) + 5 = 5$  |
| 2   | $-2(2) + 5 = 1$  |
| 4   | $-2(4) + 5 = -3$ |



3.  
A t-table works for any relation  
but there are easier ways to graph  
linear equations.

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### Method of Intercepts

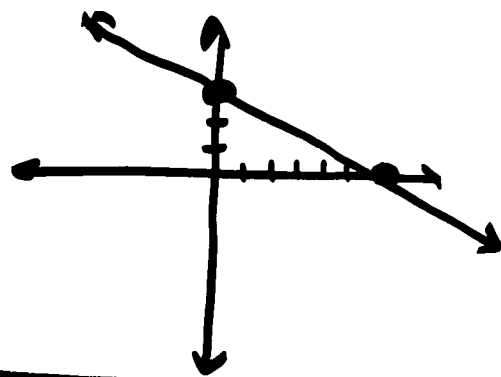
Since the  $(x, y)$  value of any point  
on the  $y$ -axis must be  $(0, y)$  and  
( $y$ -intercept =  $b$ )

and any point on the  $x$ -axis must be  $(x, 0)$

An easy way to graph  $x + 2y = 6$

is to let

| $x$     | $y$     |
|---------|---------|
| 0       | $y = 3$ |
| $x = 6$ | 0       |



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Solve for  $y$  method:

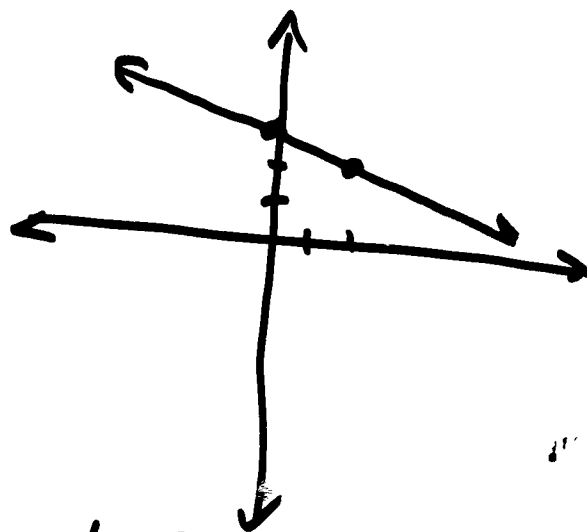
$$x + 2y = 6$$

$$2y = -x + 6$$

$$y = \frac{-x + 6}{2}$$

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

begin at 1



Graph by Method of Intercepts

$$3x + 2y = 9$$

Graph by " $y = mx + b$ " method

$$6 - y = 2x$$

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Read Ch 4-1 to 4-5

Study Guide Pgs 246 to 249

And read Ch 4-6 Functions

Pg 226 to 229.

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- How do you read a MATH book?