

BE-Alg. 2 | WEDNESDAY 9-2-09

ACT ① IN $\triangle ABC$, the sum of the measures of $\angle A$ and $\angle B$ is 47° . What is the measure of $\angle C$?

② Simplify:

$$(a + 2b + 3c) - (4a + 6b - 5c)$$

Answers!

① $\triangle ABC = 180^\circ$ total

$- 47$

$\boxed{133^\circ}$ Left for $m\angle C$

②

$(a + 2b + 3c) - (4a + 6b - 5c)$

GET OUT OF JAIL FREE

DISTRIBUTE THE $-$

$a + 2b + 3c$ $- 4a - 6b + 5c$

$\boxed{-3a - 4b + 8c}$

• Homework Review $\Rightarrow$ NEXT PG.

Homework $\Rightarrow$ Pg 31 # 33, 35, 37, 39
Pg 44 # 37, 38, 39

Pg 31

(33) $w = \{-2, 16\}$

(35) $z = \{\frac{3}{2}\}$

(37) $x = \{2, \frac{9}{2}\}$

(39) NO SOLUTION

Pg 44

(37) $b > 10 \text{ OR } b < -2$

(38) $r > -3 \text{ AND } r < 4$

(39) $w \geq -\frac{7}{3} \text{ AND } w \leq 1$

Ch. 2-1 Relations and Functions

RELATION — a set of ordered pairs.

FUNCTION — A RELATION where each x is paired with only 1 y .

Vocabulary: (x, y)
 (d, r)
 (iv, dv)

x "drives"

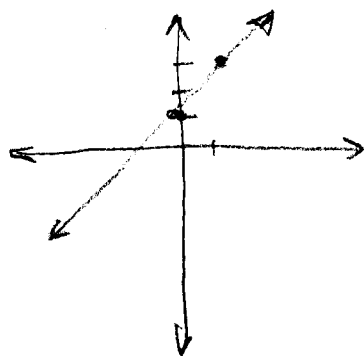
Many way to show functions:

LISTS: $\{(0, 1), (1, 3), (2, 5), (3, 7)\}$

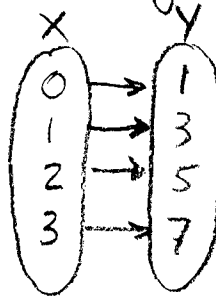
TABLE:

x	y
0	1
1	3
2	5
3	7

GRAPH:



MAPPING:



EQUATION:

$$y = 2x + 1$$

Domain:

$\{0, 1, 2, 3\}$

Range:

$\{1, 3, 5, 7\}$

Domain:

$\{\text{ALL REALS}\}$

Range:

$\{\text{ALL REALS}\}$

Domain:

$\{0, 1, 2, 3\}$

Range:

$\{1, 3, 5, 7\}$

Domain:

$\{\text{ALL REALS}\}$

RANGE

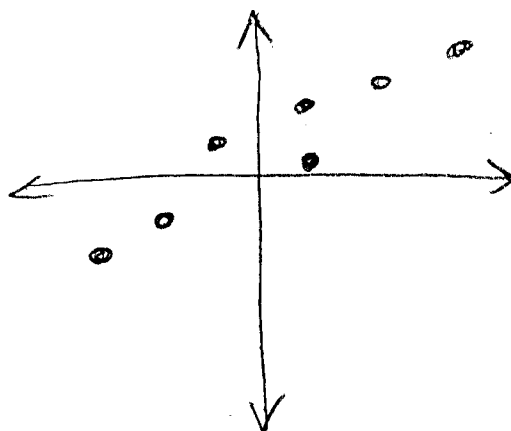
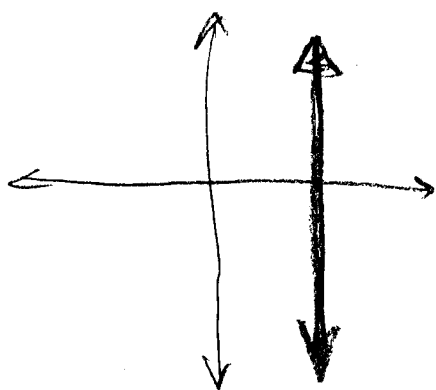
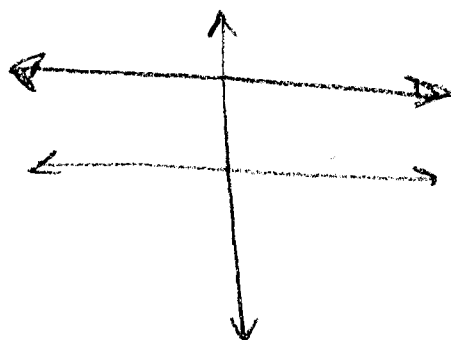
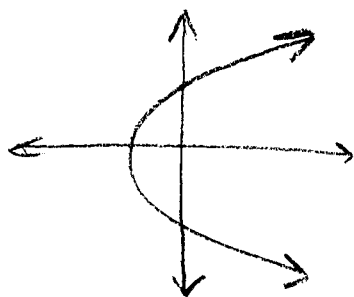
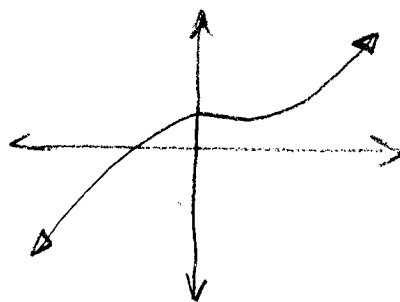
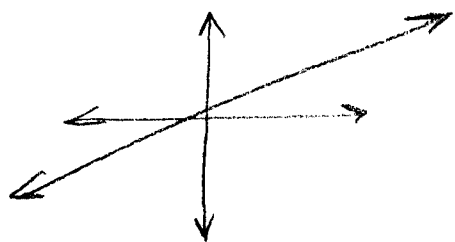
$\{\text{ALL REALS}\}$

Function? Yes or No, if NOT — why NOT.

① $\{(2, 6), (3, 5), (4, 8), (5, 6)\}$

② $\{(1, 1), (2, 1), (3, 1), (4, 1)\}$

③ $\{(5, 9), (4, 6), (5, 8), (7, 2)\}$



VERTICAL LINE TEST

Function Notation: ① tells you the equation IS a function
 ② NAMES THE function
 ③ makes it very convenient to ask for the value of the function (y) at some x . "Pick an x , find a y ."

②x $y = f(x) = 2x + 1$

- y is a function of x
- x is the independent variable
- the function name is f
- read "y equals f of x which equals..."

f is usually the first name.

g is usually next. Then what?

h — yes — you should be on CSI!

How to use the function notation to ask for and find the value of the function at any x .

EX 5
Pg 59

$$f(x) = x^2 + 2 \quad \text{find } f(-3)$$

⑤ $f(x) = x^2 + 2$ Write Function

$$f(\quad) = (\quad)^2 + 2$$

Use Parentheses to Substitute!!!

$$f(-3) = (-3)^2 + 2$$

Plug and Chug:

$$= 9 + 2 \quad \therefore \boxed{f(-3) = 11}$$

Find $f(3z)$

$$f(x) = x^2 + 2$$

$$f(\quad) = (\quad)^2 + 2$$

$$f(3z) = (3z)^2 + 2$$

$$= 9z^2 + 2 \quad \therefore \boxed{f(3z) = 9z^2 + 2}$$

• Homework: Pg 60 #17-22 Pg 61 #46-51