

September 12<sup>th</sup>, 2007

## Function Notation

BEFORE  $y = 2x + 1$

Find "y" when  
 $x = 3$

$$y = 2(3) + 1$$

$$y = 7$$

Now  $F(x) = 2x + 1$

Find  $F(3)$

$$F(x) = 2x + 1$$

$$F(3) = 2(3) + 1$$

$$F(3) = 7$$

Ex 1.  $F(x) = 2x + 1$

Find  $F(5) = 2(5) + 1 = 11$

$$F(-1) = 2(-1) + 1 = -1$$

$$F(a) = 2(a) + 1 = 2a + 1$$

$$F(x+y) = 2(x+y) + 1 = 2x + 2y + 1$$

Ex 2.  $h(t) = 2t + 3p$

Find a.  $h(3) = 2(3) + 3p = 6 + 3p$

b.  $h(p) = 2(p) + 3p = 5p$

c.  $h(3p) = 2(3p) + 3p = 9p$

d.  $h(t+p) = 2(t+p) + 3p = 2t + 5p$

Ex 3. If  $f(x) = 3x + 5$

does  $f(a) + f(b) = f(a+b)$ ?

$$3a+5 \quad 3b+5$$

(NO)

$$F(a) + F(b) = 3a + 3b + 10$$

Ex 4: If  $f(x) = 3x + 1$

Find  $x$  when  $f(x) = 10$

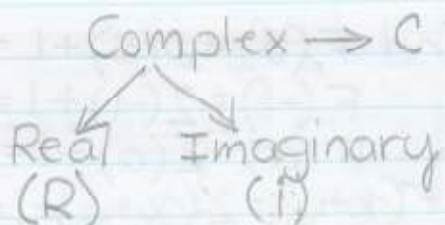
$$f(x) = 3x + 1$$

$$10 = 3x + 1$$

$$9 = 3x$$

$$\therefore x = 3$$

### NUMBER SYSTEM



Expressed as  
a fraction  
↓  
Repeating  
or  
terminating  
decimals

Rational ( $Q$ )  $\rightarrow$  Irrational ( $\bar{Q}$ )

↓  
Integers ( $I$  or  $Z$ )

↓  
Whole ( $W$ )

↓  
Natural ( $N$ )