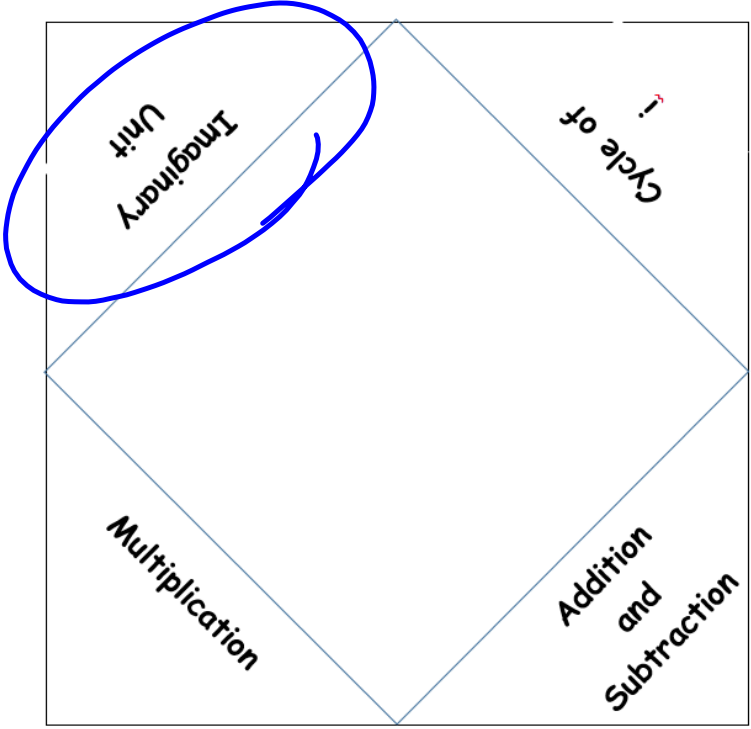


## Wednesday: Math Skill

If Hannah worked these hours each week, how much would she make in 1 week

Time Card					
Employee: Hannah					
Day	In	Out	In	Out	Total Hours
Monday	6:00 AM	9:00 AM	11:00 AM	1:00 PM	5 6 7 7 9 0 9 45
Tuesday	7:00 AM	10:00 AM	11:00 AM	4:00 PM	
Wednesday	6:00 AM	10:00 AM	12:00 PM	3:00 PM	
Thursday	9:00 AM	12:00 PM	3:00 PM	7:00 PM	
Friday	10:00 AM	3:00 PM	5:00 PM	9:00 PM	
Saturday	OFF	OFF	OFF	OFF	
Sunday	6:00 AM	1:00 PM	4:00 PM	6:00 PM	
		HOURS	SALARY PER HOUR	TOTAL SALARY	
Regular Hours		40	\$15.00	600	
Overtime		5	\$22.50	112.50	
TOTAL				712.50	



$i$  imaginary unit

$$i = \sqrt{-1}$$

$a + bi$  is a complex number

$a$  is a real number

$bi$  is an imaginary

Identify the real and imaginary parts of the expression

1.  $3+4i$

real 3  
imag.  $4i$

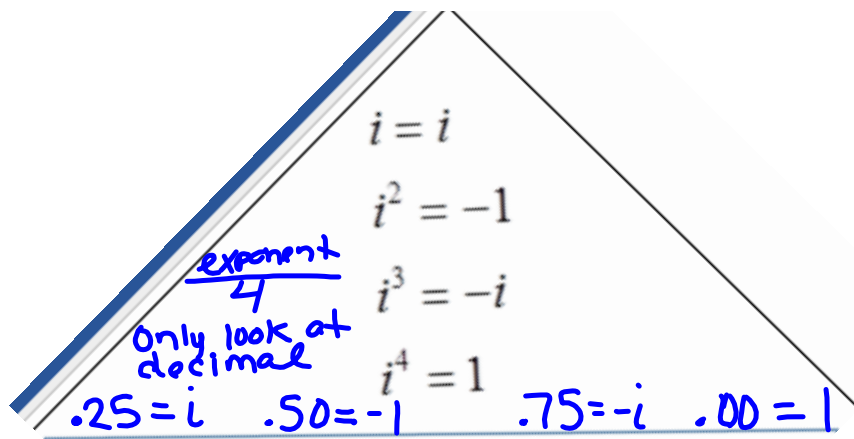
2.  $6i$

real 0  
imag  $6i$

2b.  $\sqrt{-27}$

$i\sqrt{27}$   
 $i3\sqrt{3}$   
 $3i\sqrt{3}$

$\sqrt{27}$   
 $3\sqrt{3}$   
 $3i$

Simplify the value of  $i$ 

4.  $i^{10}$    5.  $i^{75}$    6.  $i^{254}$

$-1$     $-i$     $-1$

$\frac{10}{4} = 2.5$     $\frac{75}{4} = 18.75$     $\frac{254}{4} = 63.5$

$2\frac{2}{4}$

Add/Subtract the real numbers.

Add/Subtract the imaginary numbers

(like terms)

Simplify the following

7.  $(2 - 5i) + (6 + 3i)$

$$8 - 2i$$

8.  $2i - (3 - 4i) + (-8 + 15i)$

$$-11 + 21i$$

4.  $i^2$

$$2i - -4i + 15i$$

$$2i + 4i + 15i$$

Distribute the terms and  
treat  $i$  like an  $x$ .  
Simplify the expression

Simplify the following

9.  $(2 - 5i)(6 + 3i)$

$$12 + 6i - 30i - 15i^2$$

$$12 - 24i - 15(-1)$$

$$12 - 24i + 15$$

$$27 - 24i$$

8.  $(3 - 4i)(-2 - 7i)$

$$-6 - 21i + 8i + 28i^2$$

$$-6 - 13i + 28(-1)$$

$$-6 - 13i - 28$$

$$\boxed{-34 - 13i}$$