

## P.5 MATHS LESSON NOTES WEEK 5 NOVEMBER

### LESSON 1

#### Addition of integers without a number line

##### Tips

- a) If both integers are positive the result is +ve
- b) If both integers are negative the result is -ve
- c) If the positive numeral is bigger the result is +ve
- d) If the negative numeral is bigger the result is -ve
- e) If a number is added to its inverse/opposite the result is zero.

##### Examples

1.	$+4 + +6$	3.	$-3 + +7$
	$+4(++)6$		$+x+=+$
	$+4 + 6$		$-3(++) 7$
	$=+10$		$-3 + 7$
			$= +4$
2.	$+8 + -5$	4.	$-5+ -5$
	$+9(+-) +x - = -$		$-5(+-)5 +x- = -$
	$+8 - 5=$		$-5 - 5$
	$+3$		$-10$

#### Exercise

Add the following without using a number line.

1.  $+8 + +5$

2.  $-8 + +4$

3.  $+12 + +4$

4.  $-10 + -5$

5.  $-6 + +9$

6.  $-11 + +4$

7.  $-20 + -25$

8.  $-12 + +8$

9.  $+8 + -8$

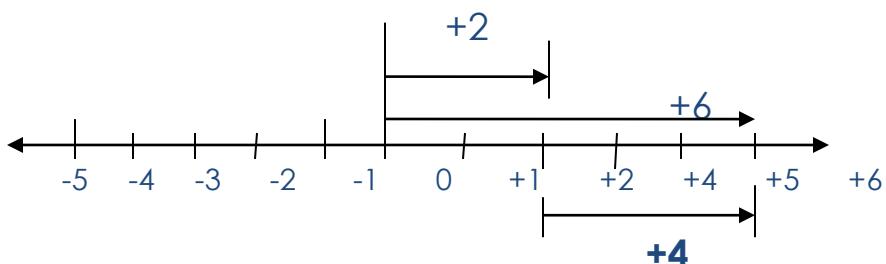
10.  $-6 + -6$

## LESSON 2

### Subtracting integers using a number line

Example

$$+6 - +2$$



### Note

In subtraction of integers, maintain the integers and their signs on the number line and always all the arrow start from the same origin.

### Activity

Subtract the following using number line

1.  $+7 - +2$

2.  $+6 - +1$

3.  $-3 - +2$

4. -3 - +7

5. -10 - -6

## LESSON 3

### Subtraction of integers without using a number line

#### Examples

1.  $+7 - +3$   $+6 + 2$

$+7(-+)3 -x+ = - +8$

$+7 - 3$

$= +4 \quad 3. \quad -7 - -9$

$-7(--)9 -x- = +$

2.  $+6 - -2$   $-7 + 9$

$+6(--)2 \quad +2$

#### Exercise

Subtract the following without using a number line

1.  $+6 - +4$

2.  $-2 - +2$

3.  $+9 - +12$

4.  $-6 - +3$

5.  $+8 - +5$

6.  $-2 - -8$

7.  $+4 - -8$

8.  $+6 - -4$

9.  $-4 - +2$

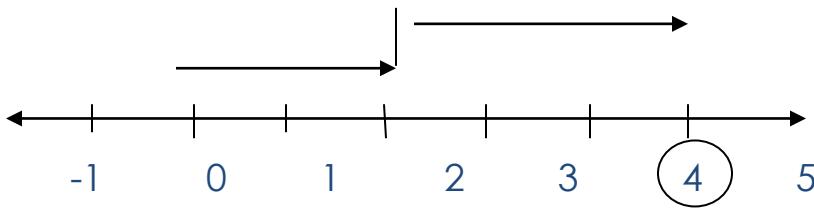
10.  $+1 - -1$

## LESSON 4

### Formation of mathematical statements from number lines

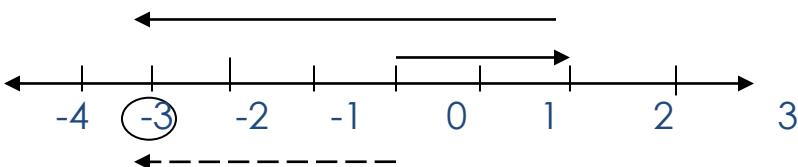
#### Example

1.



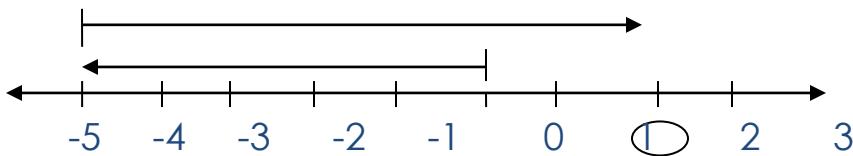
Statement -  $+2 + +3 = +5$

2.



$$+2 + -5 = -3$$

3.

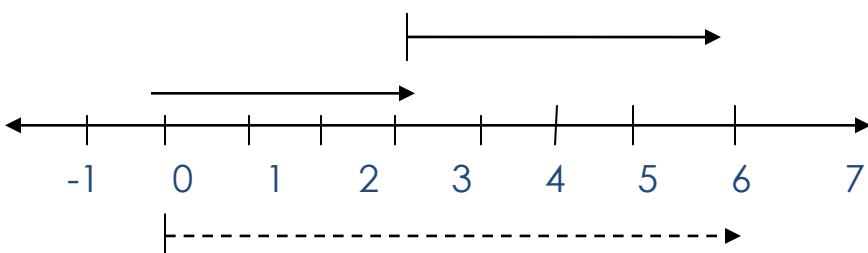


$$-5 + +7 = +2$$

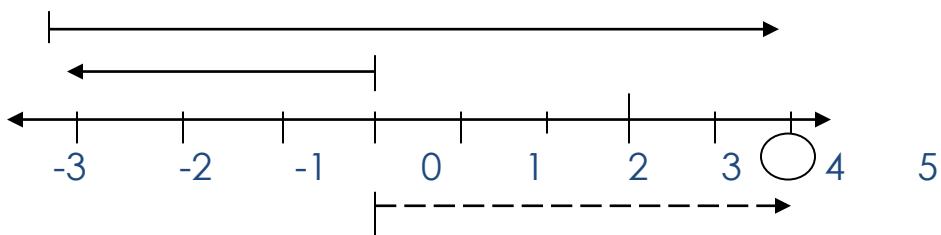
#### Exercise

Write mathematical statements for the number lines below.

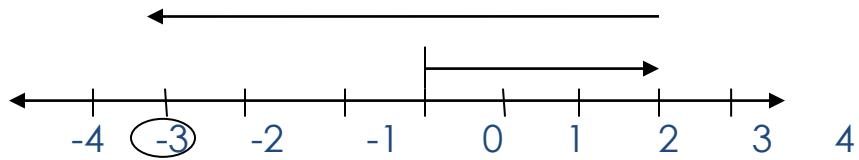
1.



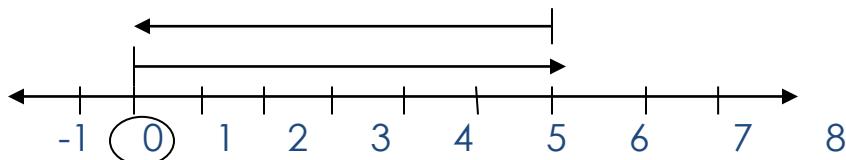
2.



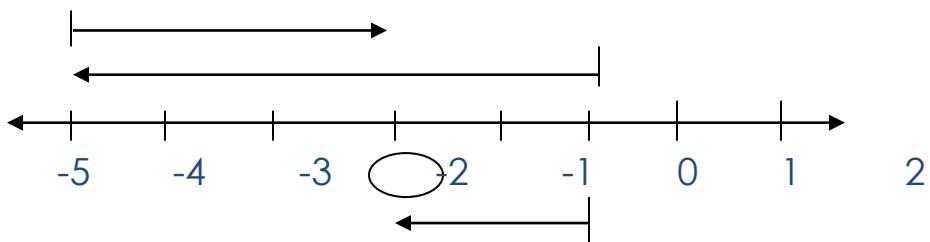
3.



4.



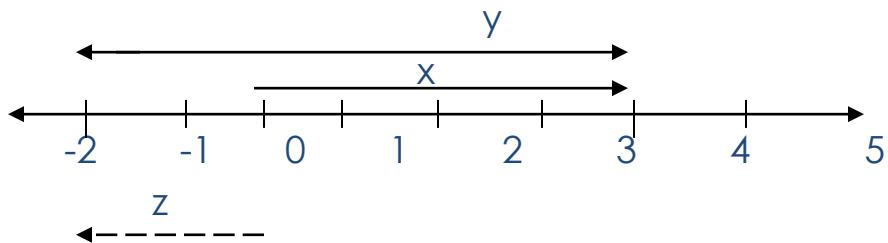
5.



## LESSON 5

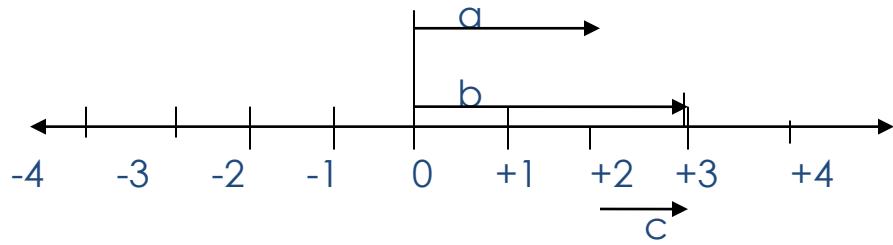
### ACTIVITY

1. Study the number line below and answer questions that follow.



- a) Find the value of;
- (i)  $x$
  - (ii)  $y$
  - (iv)  $z$
- b) Write a mathematical statement for the above number line.

2.



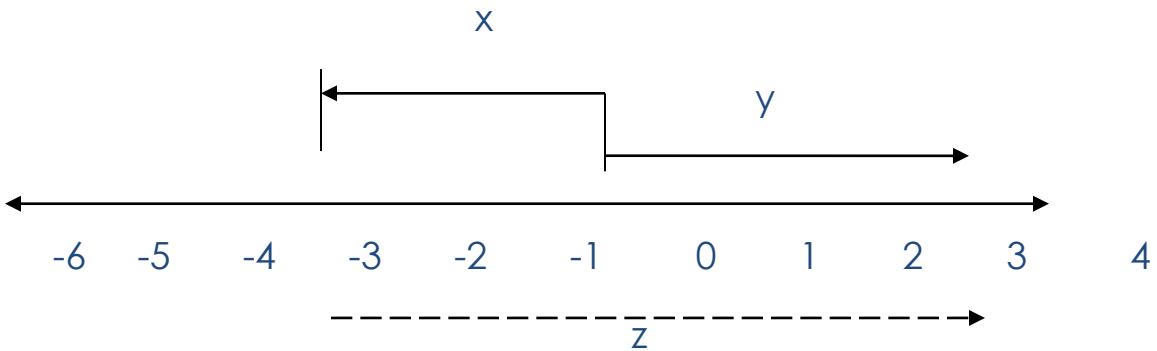
Write down the integers represented by letters

$$a =$$

$$b =$$

$$c =$$

3.



$$a) \quad X =$$

$$b) \quad Y =$$

$$c) \quad Z =$$

b) Write down the mathematical statement

