

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 14

CHAPTER NAME : INTRODUCTION TO NEGATIVE NUMBERS

SUB-TOPIC : ORDERING OF INTEGERS

ORDERING OF NUMBERS

EVERY POSITIVE INTEGER IS GREATER THAN NEGATIVE INTEGER

EX: $8 > -9$

ZERO IS SMALLER THAN EVERY POSITIVE INTEGER

$5 > 0$

ZERO IS GREATER THAN EVERY NEGATIVE INTEGER

$0 > -5$

GREATER THE NUMBER LESSER IS ITS OPPOSITE

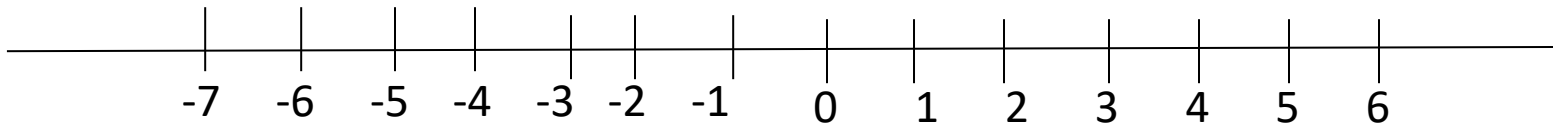
$6 > 4$ BUT $-6 < -4$

1-46 8-14 -68
-200
29 -54 -22
-34 -77 78 -9
1150 -45 -1 -

ORDERING OF NUMBERS

EXAMPLE:

Use number line to arrange in ascending order.
4, -3, 2, 0, -6, 7 and -4



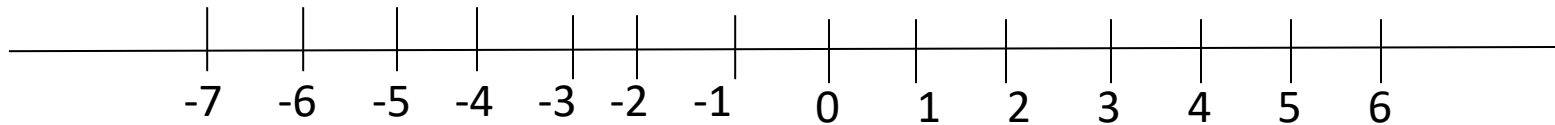
$$-6 < -4 < -3 < 0 < 2 < 4 < 7$$

1-46-8-14-68
-200-54-22
29-34-77-78-9
1150-45-1-

ORDERING OF NUMBERS

EXAMPLE:

Use number line to arrange in descending order.
4, -7, 6, 7, 0, -1 and 5



$$7 > 6 > 5 > 4 > 0 > -1 > -7$$

1-46 8-14 -68
-200 8
29 -54 -22
-34 77 78 -9
1150 -45 -1 -

EXERCISE 14 A

1. Which numbers from each of the pairs is bigger?

a. 2 _____ - 2

b. 3 _____ - 5

c. -4 _____ 0

d. -1 _____ -4

e. -4 _____ - 8

f. -15 _____ - 18

g. 0 _____ 7

h. -6 _____ 3

1-46 8-14 -68
-200 8
-54 -22
29 -34 77 78 -9
1150 -45 -1 -

EXERCISE 14 A

2. Which numbers from each of the pairs is smaller?

a. -4 _____ 0

b. 1 _____ -2

c. 16 _____ -7

d. 0 _____ 5

e. -15 _____ 4

f. -10 _____ -6

g. 12 _____ -13

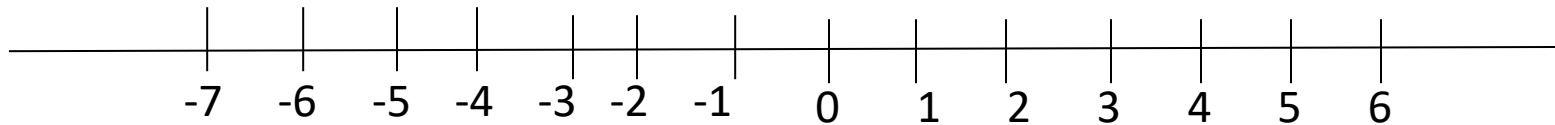
h. -20 _____ -14

1-46 8-14 -68
-200 8
-54 -22
29 -34 77 78 -9
1150 -45 -1 -

EXERCISE 14 A

3. Use number line to arrange in ascending order.

a. **-6, 5, 0, -5, 4, -1, 2 and -7**



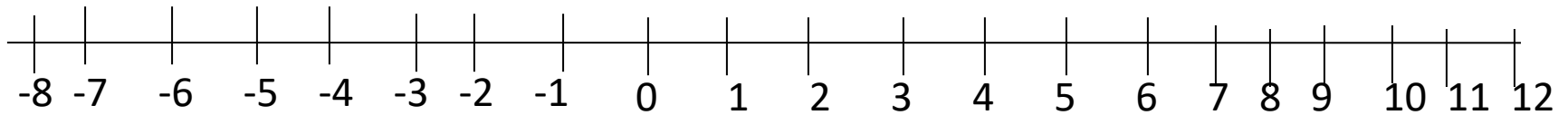
$$\mathbf{-7 < -6 < -5 < -1 < 0 < 2 < 4 < 5}$$

1-46 8-14 -68
-200 8
29 -54 -22
-34 77 78 -9
1150 -45 -1 -

EXERCISE 14 A

4. Use number line to arrange in descending order.

c. **12, 10, -8, 0, -7, -6, 5 and 2**



$12 > 10 > 5 > 2 > 0 > -6 > -7 > -8$

1-46-8-14-68
-200-54-22
29-34-77-78-9
1150-45-1-

The logo for 'Learning Outcomes' features the words 'Learning' and 'Outcomes' in a large, bold, black font with a yellow outline and a drop shadow. To the left of the text is a blue graduation cap with a tassel. Above the word 'Learning' is a red apple with a green leaf, all enclosed in a circular frame.

Learning Outcomes

Students are able:

- **To recognize negative numbers**
- **To represent negative numbers on number line.**

THANKING YOU
ODM EDUCATIONAL GROUP

CLASS : V

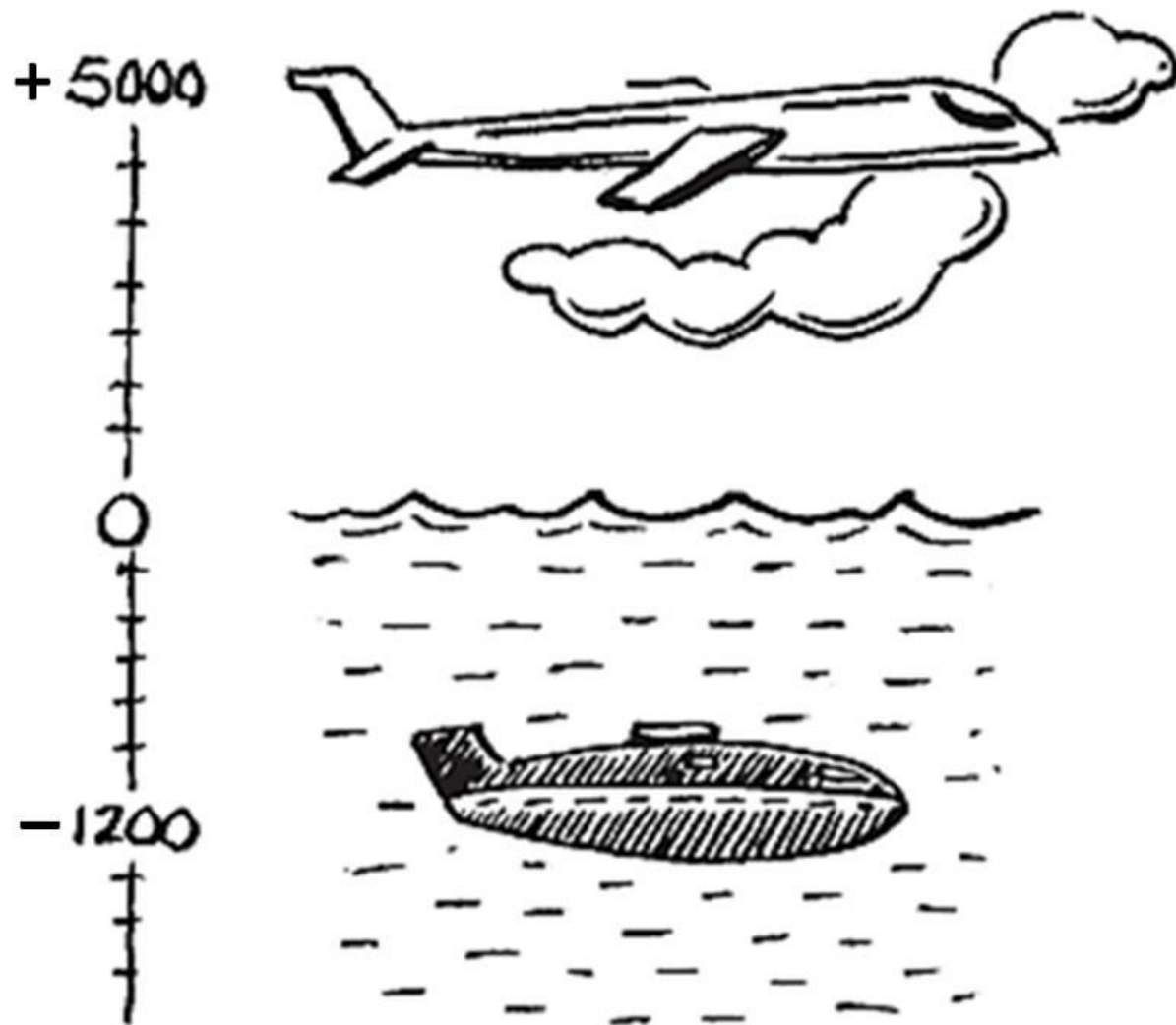
SUBJECT : MATHEMATICS

CHAPTER NUMBER: 14

CHAPTER NAME : INTRODUCTION TO NEGATIVE NUMBERS

**SUB-TOPIC : INTRODUCTION & REPRESENTATION OF NEGATIVE
NUMBERS ON NUMBER LINE.**

CHANGING YOUR TOMORROW

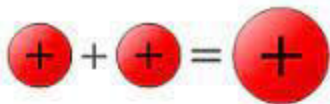


CONCEPT OF NUMBERS:

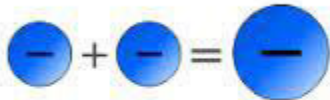
I. Natural numbers: Numbers used to count natural things. Ex: 1,2,3,4,5,6...

II. Whole number: ZERO added to the natural numbers are whole numbers. Ex: 0,1,2,3,4,5,6...

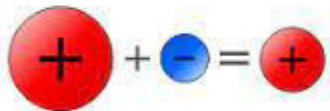
III. Integers/ Negative numbers: When a greater number is subtracted from a smaller number , the answer is a negative number.



$$+ + = +$$



$$- + - = -$$



$$+ + - = +$$

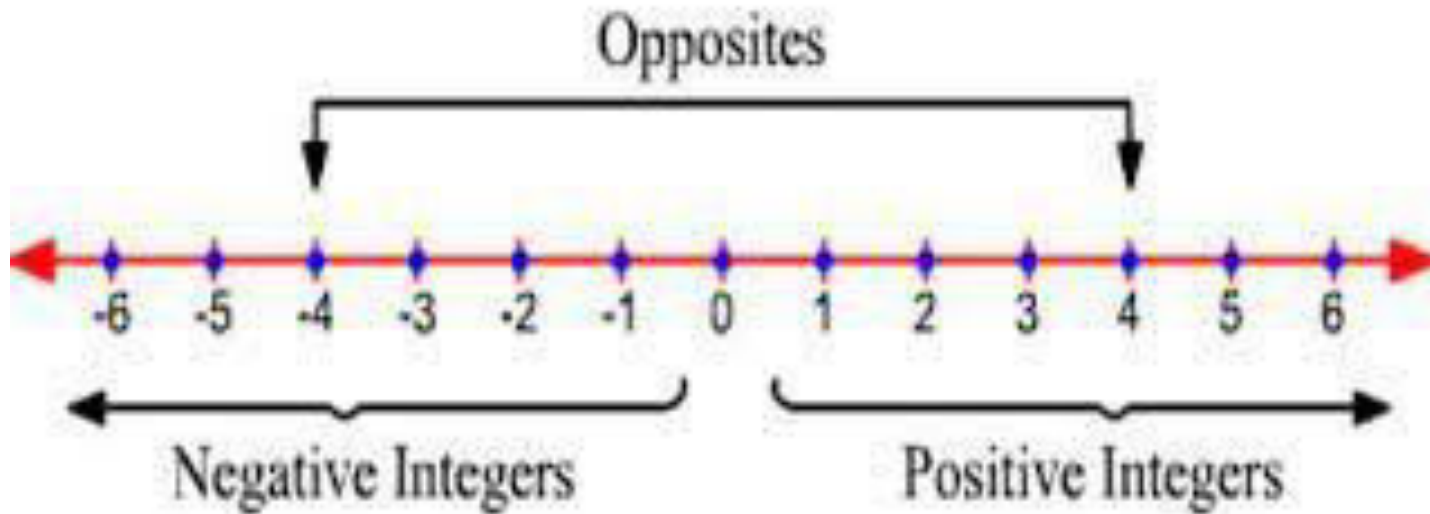


$$+ + - = -$$

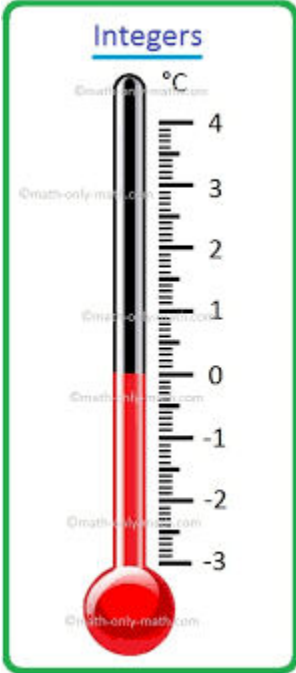
Ex: $10 - 6 = 4$

$6 - 10 = - 4$

REPRESENTATION OF NEGATIVE NUMBERS ON NUMBER LINE



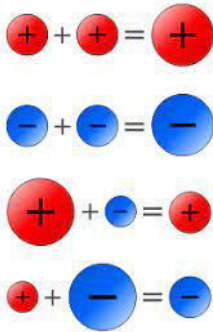
DAILY LIFE USE OF NEGATIVE INTEGERS.



TEMPERATURE



HEIGHT ABOVE THE SEA LEVEL



EXERCISE 14 (A)

5. Write the negative integers of the following

a) $-12 = +12$

b) $6 = -6$

c) $0 = 0$

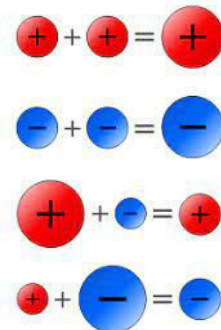
d) $-7 = +7$

e) $-4 = +4$

f) $-10 = +10$

g) $8 = -8$

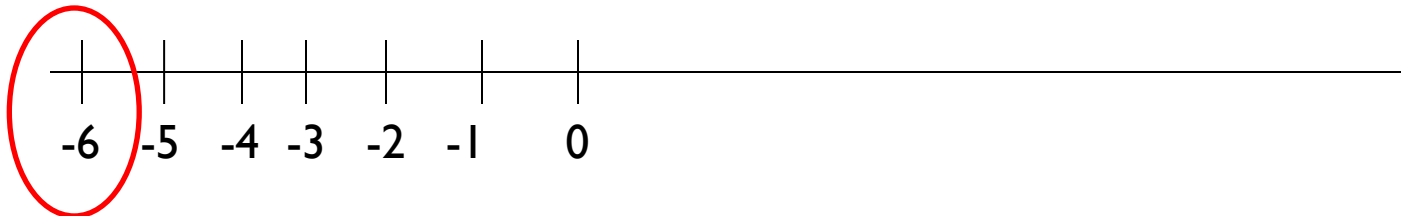
h) $4 = -4$



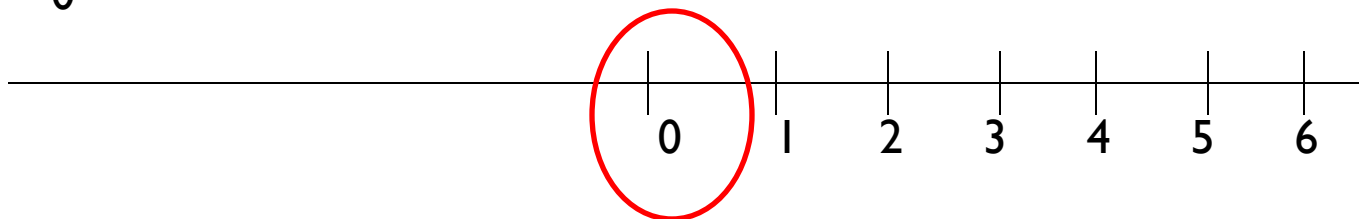
EXERCISE 14 (A)

6. Mark the following integers on the number line

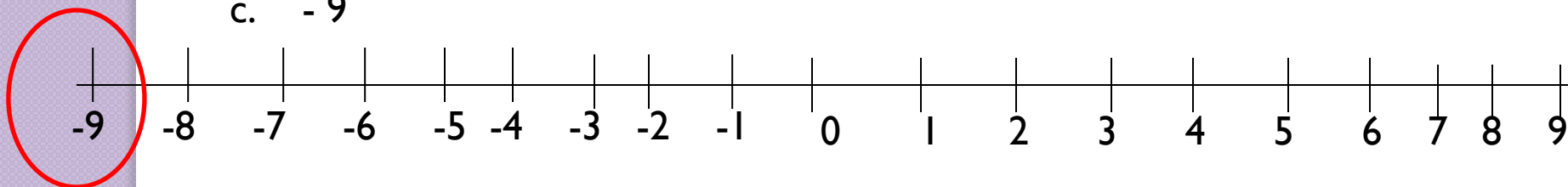
a. -6



b. 0



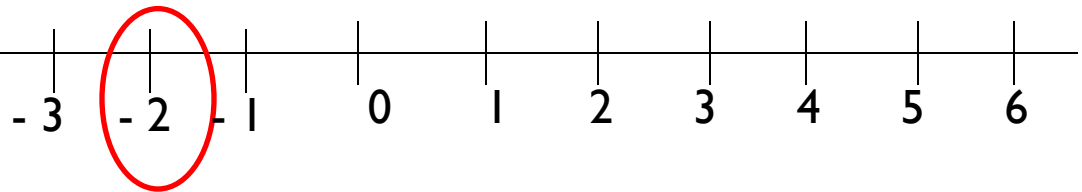
c. -9



EXERCISE 14 (A)

6. Mark the following integers on the number line

d. - 2



7. How many integers are in between?

a. - 5 and 2 = -4 , -3 , -2 , -1 , 0 , 1 = **6 integers**

b. 4 and 11 = **6 integers**

EXERCISE 14 (A)

7. How many integers are in between?

c. - 3 and - 10 = **6 integers**

d. - 5 and +5 = **9 integers**

8. Write all integers in between

a. - 2 and +7 = **-1 , 0 , 1 , 2 , 3 , 4 , 5 , 6**

b. - 4 and +4 = **-3 , -2 , -1 , 0 , 1 , 2 , 3**

EXERCISE 14 (A)

8. Write all integers in between

c. 0 and $-5 = -4, -3, -2, -1, 0$

d. 2 and 9 = $3, 4, 5, 6, 7, 8$

9. Indicate the following using integers

a. Loss of Rs. 90 = -90

a. Profit of Rs. 48 = $+48$

a. 5 km above the ground level = $+5$

a. 2 km below water level = -2

EXERCISE 14 (A)

9. Indicate the following using integers

e. 22° above zero = **+ 22**

f. 3° below zero = **- 3**

10. Find the opposite of the following

a. A profit of rs. 700 = **A loss of Rs. 700**

a. $- 13 =$ **+ 13**

b. $27 =$ **- 27**

a. Going south = **Going North**

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