NEGATIVE NUMBERS AND INTEGERS

SUBJECT : MATHEMATICS
CHAPTER NUMBER: 06
CHAPTER NAME : NEGATIVE NUMBERS AND INTEGERS

SUBTOPIC : Ordering of integers, Addition and Subtraction of integers
**PERIOD NO: 2**

CHANGING YOUR TOMORROW

Learning outcomes

- Students will be able to add add subtract integers .
- students will be able to add and subtract integers using number line .
- student should be able to apply addition and subtraction of integers in real life situation

Previous knowledge test

# Working With Negative Numbers

Use this number line to help you.
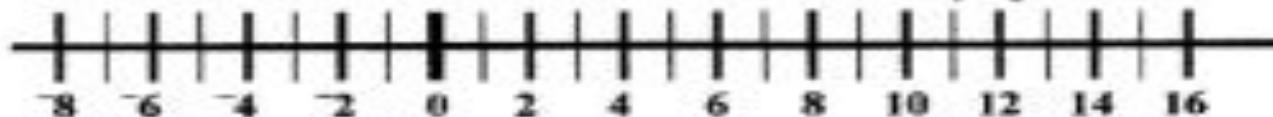
1. Start at 2. Take away 4. What number are you on now?
   So 2 - 4 =?

2. Start at -1. Add on 4. What number are you on now?
   So -1 + 4 =

3. Start at 5. Take away 8. What number are you on now?
   So 5 - 8 = ?

4. Start at 12. Take away 18. What number are you on now?
   So 12 - 18 = ?

Negative numbers and Integers

- Students will Learn Addition and subtraction of integers with the help of the following video .

Find the Sum:

$6 + 3 = 9$
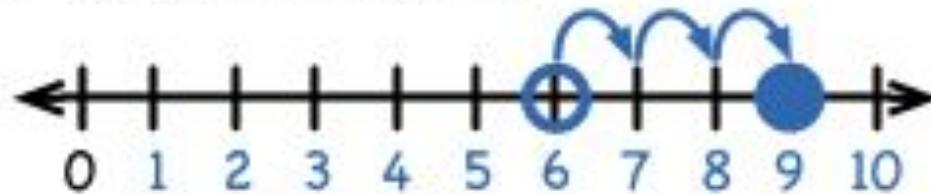
$-6 + 3 = -3$
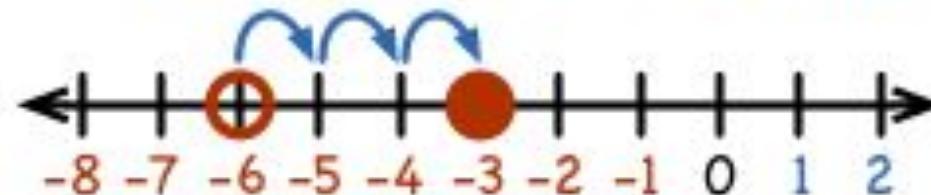
$-6 + (-3) = -9$

Number Line

Adding Positive and Negative Integers

Integer Sign		Operation	Answer Sign	Example
+	+	Add	+	$2 + 5 = 7$
−	−	Add	−	$-2 - 5 = -7$
+	−	Subtract	Larger Integer's Sign	$2 - 5 = -3$
−	+	Subtract	Larger Integer's Sign	$-2 + 5 = 3$

Subtracting Positive and Negative Integers
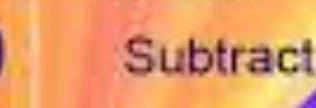
Integer Sign	Operation	Answer Sign	Example
➕ − ➕	Subtract	Larger Integer's Sign	2 - 5 = - 3
➖ − ➖	Subtract	Larger Integer's Sign	- 2 - (- 5) = - 2 + 5 = 3
➕ − ➖	Add	➕	2 - (- 5) = 2 + 5 = 7
➖ − ➕	Add	➖	- 2 - 5 = - 7
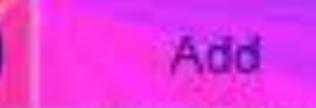
Evaluation Question

4. Add :(i) 13 and 15

(ii) -13 and 15

(iii) 13 and -15

(iv) -13 and -15

Solution:

(i) 13 and 15

13 + 15 = 28

(ii) -13 and 15

(-13) + 15 = 2

(iii) 13 and – 15

13 + (-15) = 13 – 15

= -2

(iv) -13 and -15

(-13) + (-15) = – 13 – 15

= – 28

5. Add:

(i) 259 and 214   (ii) -528 and -243

(iii) -623 and 326 (iv) 258 and -473

(v) -622 and -254 (vi) 257 and – 254

Evaluation Question

Solution:

(i) 259 and 214

259 + 214= 473

(ii) -528 and -243

= -528 + (- 243)

= -528 – 243= – 771

(iii) – 623 and 326

= – 623 + 326= – 297

(iv) 258 and -473

= 258 + (- 473)

= 258 – 473 = – 215

(v) -622 and -254

= – 622 + (- 254)= – 622 – 254

= – 876

Evaluation Question

6. Subtract:

(i) 5 from 8   **(ii) -5 from 8**

(iii) 4 from -7   **(iv) -8 from -2**

(v) -3 from 12   **(vi) -6 from -3**

Solution:

(i) 5 from 8

= 8 – 5= 3

(ii) -5 from 8

= 8 – (-5)= 8 + 5= 13

Evaluation Question

iii) 4 from – 7

= – 7 – 4= – 11

(iv) – 8 from – 2

= – 2 – (- 8)

= – 2 + 8= 6

(v) – 3 from 12

= 12 – (-3) = 12 + 3

= 15

(vi) – 6 from – 3

= – 3 – (- 6)= – 3 + 6 = 3

Evaluation Question

7. Subtract

(i) – 123 from 453

(ii) -78 from – 12

(iii) 329 from – 124

(iv) -222 from 0

Solution:

(i) – 123 from 453

= 453 – (- 123)

= 453 + 123 = 576

Evaluation Question

ii) – 78 from -12

= – 12 – (-78)

= – 12 + 78 = 66

(iii) 329 from -124

 – 124 – 329= – 453

(iv) –222 from 0

= 0 – (-222)

= 0 + 222

= 222

Additional Homework

11. Using the number line, write the integer which is:

(i) 2 more than 3

(ii) 5 less than 3

(iii) 4 more than − 9

**HW
Ex.6,Q NO 4,5,6,7**

THANKING YOU
ODM EDUCATIONAL GROUP