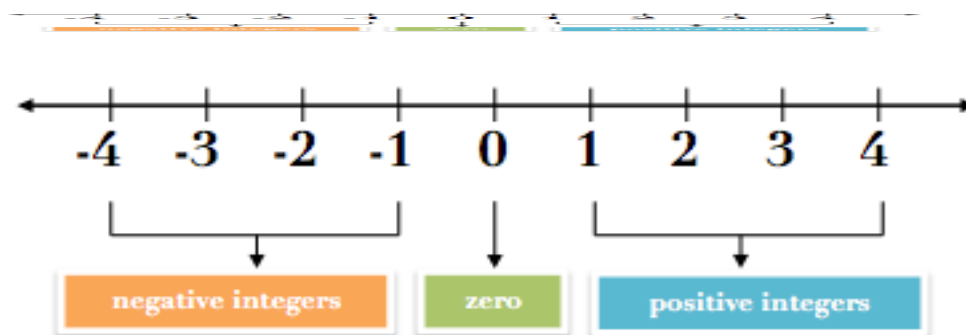


Sub: MATHS  
Assignment-2



We have learnt about whole numbers in Class 6. Integers form a bigger collection of numbers which contains whole numbers and negative integers.

### REAL LIFE APPLICATION OF INTEGERS

|                    | POSITIVE        | NEGATIVE        |
|--------------------|-----------------|-----------------|
| DISTANCE           | FORWARD         | BACKWARD        |
| TEMPERATURE        | ABOVE 0 DEGREES | BELOW 0 DEGREES |
| PROFIT             | GAIN            | LOSS OR DEFICIT |
| VERTICAL DIRECTION | UP              | DOWN            |
| BANK ACCOUNT       | DEPOSIT         | WITHDRAWAL      |

**Example 1** A plane is flying at a height of 5000m above the sea level. At a particular point, it is exactly above a submarine floating 1200m below the sea level. What is the vertical difference between them?

**Solution** Height of plane = 5000m

Depth of submarine= $(-1200\text{m})$

Difference between plane and submarine= $5000\text{m}-(-1200\text{m})$   
 $=5000\text{m}+1200\text{m}=6200\text{m}$

**Q1)** At Srinagar temperature was  $-5^{\circ}\text{C}$  on Monday and then it dropped by  $2^{\circ}\text{C}$  on Tuesday. What was the temperature of Srinagar on Tuesday? On Wednesday, it rose by  $4^{\circ}\text{C}$ . What was the temperature on this day?

**Q2)** Mohan deposits Rs 2,000 in his bank account and withdraws Rs 1,642 from it, the next day. If withdrawal of amount from the account is represented by a negative integer, then how will you represent the amount deposited? Find the balance in Mohan's account after the withdrawal.

### Example 2

Write down a pair of integers whose (a) sum is  $-3$  (b) difference is  $2$

Solution

(a)  $(-1)+(-2)=(-3)$  or  $(-5)+2=(-3)$

(b)  $(-7)-(-9) = 2$  or  $1-(-1)=2$

**Q3)** Write down a pair of integers whose (a) sum is  $-7$  (b) difference is  $-10$

## OPERATION OF INTEGERS

### MULTIPLICATION:

SAME SIGNS : PRODUCT IS POSITIVE

DIFFERENT SIGNS: PRODUCT IS NEGATIVE

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### Example 3

(a)  $3 \times (-1) = (-3)$

(b)  $(-11) \times (-10) = 110$

**Q4)** Solve

(a)  $(-1) \times 225$

(b)  $(-21) \times (-30)$

(c)  $(-316) \times (-1)$

(d)  $(-15) \times 0 \times (-18)$

(e)  $(-12) \times (-11) \times (10)$

(f)  $9 \times (-3) \times (-6)$

#### Example 4

$$(a) 18 \times 7 + 18 \times (-3)$$

Solution

$$18 \times [7 + (-3)] = 18 \times 4 = 72 \quad (\text{using distributive property})$$

**Q5)** Find the product using suitable properties.

$$(a) 26 \times (-48) + (-48) \times (-36)$$

$$(b) 625 \times (-35) + (-625) \times 65$$

$$(c) (-57) \times (-19) + 57$$

$$(d) (-41) \times 102$$

$$(e) 7 \times (50 - 2)$$

**Q6)** Replace the blank with an integer to make it a true statement.

$$(a) (-3) \times \underline{\quad} = 27$$

$$(b) 5 \times \underline{\quad} = -35$$

$$(c) \underline{\quad} \times 8 = -56$$

$$(d) \underline{\quad} \times (-12) = 132$$

## OPERATION OF INTEGERS

### DIVISION

- 
- SAME SIGN = QUOTIENT IS POSITIVE
  - DIFFERENT SIGN = QUOTIENT IS NEGATIVE
- 

#### Example 5

$$(a) (-8) \div (-4) = 2$$

$$(b) (72) \div (-8) = (-9)$$

**Q7)** Evaluate each of the following

$$(a) (-30) \div 10$$

$$(b) 50 \div (-5)$$

$$(c) (-36) \div (-9)$$

$$(d) (-49) \div (49)$$

$$(e) 13 \div [(-2) + 1]$$

$$(f) 0 \div (-12)$$

**Q8)** Fill in the blanks

(a)  $369 \div \underline{\quad} = 369$

(b)  $(-75) \div \underline{\quad} = (-1)$

(c)  $(-206) \div \underline{\quad} = 1$

(d)  $-87 \div \underline{\quad} = 87$

(e)  $\underline{\quad} \div 48 = (-1)$

**Q9)** A certain freezing process requires that the room temperature be lowered from  $40^{\circ}\text{C}$  at the rate of  $5^{\circ}\text{C}$  every hour. What will be the room temperature 10 hours after the process begins?

**Q10)** The sum of two integers is 93. If one of them is  $(-59)$ , find the other one.