EXAMPLES OF PROBLEMS

Read carefully the questions given below and ceategorise them into problems related to state, change and relation with respect to integers.

1. Ajay has to purchase a book costing Rs 25 but he has Rs 20 in his purse. He saw his friend Vijay and asked for Rs 5 to solve his problem. Vijay had Rs 40 in his pocket. He immediately gave Rs 5 to his friend Ajay. At this moment what are the status of Ajay and Vijay regarding money. Ajay is now in depth. Now this depth requires a number. The number which we could give is (−5) or (− Rs 5).

2. My height is 165 cm. My sisters height is 150 cm. How much shorter is my sister than myself. How can it be expressed in terms of integers.

3. A bird was sitting on a light house. The height of light house above sea level was 25m. A dipper was 10m below sea level. The position of bird and dipper can be described as +25m and −10m.

4. The temperature of Mumbai and Ladakh were, in the month of December, 20°C above 0°C and 5°C below 0°C. We would like to represent temperature of Mumbai's as +20°C and ladakh −5°C.

5. Ravi's house is on eighth floor of a building. His uncle stays in the seventeenth floor of the same building. How many floors below is Ravi's house than his uncles house. Express in terms of integers.

6. Ramlal has a deposit of Rs 25000 in SBI but his friend Motilal has taken Rs 5000 loan from SBI. We can say Ramlal's deposit is equal to +2500 and Motilal's deposit is equal to -5000.

7. Monu appeared in a medical examination. In this exam, on right answer 5 marks were given but on wrong answer 3 marks were deducted. If monu attempted 25 correct answer and 7 wrong answer. The total marks of monu can be calculated by introducing negative sign.

8. One KV school is conducting a Bal Mela. One group of students made samosa and gulab Jamun. Samosas costed them Rs 300 and Gulab Jamun costed them Rs.400. In the mela after selling these total collection from selling Samosas is Rs 350 and From Gulab Jamun Rs 375. Find their income.

9. A farmer purchased two cows in Rs 5000 each. He sold one cow with a profit of Rs 1000 and another with loss of Rs 500.If we want to calculate his profit or loss as a whole. We require to introduce the concept of positive and negative integers.

10. A man was in delhi, temperature was 35°C .When he came in mumbai the temperature decreases by 10°C and noted as 25°C.Further he went to a hill station the temperature was −2°C.Here temperature changes and need of negative is required.

11. In Morning Assembly students are standing according to their height. Meera is standing 3 positions ahead of me and Radha is standing 7 positions behind me. Express how far are they from me in terms of integers. Also find the distance between them. What is their position from the starting point.

12. There is a Tower of 10 storey above the ground floor and 3 storey below the ground floor. A man goes to 6th floor from ground floor and came back to ground floor and moved 2 floor below ground floor. In this movement his positions changed from 0 to 6th floor then 6th floor to 0th floor then 0th to -2th floor. Here we need positive and negative integer to represent the positions of floor.