Exercise 7.7

1. (*i*) Find the mode of 1, 1, 2, 3, 3, 4, 3, 5, 3.
   (*ii*) Calculate mode of: 4, 3, 2, 5, 3, 4, 5, 1, 7, 3, 2, 1.
   (*iii*) Find the mode of: 5, 3, 27, 5, 9, 3, 8, 5.
2. (*i*) Find the mode of the following array of an individual series of scores 7, 7, 10, 12, 12, 12, 11, 13, 13, 17.
   (*ii*) Find the mode of following array of individual series of scores 2, 2, 3, 4, 4, 4, 5, 5, 6.
3. (*i*) Find the Mean and the Mode of the set of numbers:
   7, 4, 10, 15, 7, 3, 5, 2, 9, 12
   (*ii*) Calculate mode from the data given below:
   Marks: 15, 18, 20, 25, 28, 25, 22, 19, 25.
4. Find the Mean and Mode of the numbers :
   4, 3, 2, 5, 3, 4, 5, 1, 7, 3, 2, 1.
5. For what value of x, is the mode of the following data is 5 ?
   2, 4, 3, 5, 4, 5, 6, 4, x, 7, 5.
6. Find the value of k for which the mode of the following data is 7.
   3, 5, 5, 7, 3, 6, 7, 9, 6, 7, 3, 5, 7, 3, k.
7. For what value of k is the mode of the following data is 9 ?
   5, 6, 3, 5, 9, 7, 8, 5, 9, k, 9, 4.
   If 3 is added to each element of the above data, find the new mode.
8. Find the median and mode of the numbers :
   4, 10, 7, 15, 7, 3, 5, 3, 7.
9. (*i*) For what value of p, the mode of the following data is 3?
   4, 3, 2, 5, p, 4, 5, 1, 7, 3, 2, 1.
   (*ii*) The following is the data of wages per day : 5, 4, 7, 5, 8, 8, 8, 5, 7, 9, 5, 7, 9, 10, 8
   Find the mode of the data.
10. (*i*) Find mean, mode and median for the following data.
    10, 15, 18, 10, 10, 20, 10, 20, 15, 21, 15 and 25. [*CBSE* 2011]
    (*ii*) In a test given by 15 students, the following marks were awarded. Find the mean, median and mode.
    52, 49, 41, 38, 39, 61, 58, 52, 47, 72, 85, 52, 68, 62, 79. [*CBSE* 2010]
    (*iii*) The following data have been arranged in ascending:
    29, 32, 48, 58, x, $x + 2$, 64, 78, 84, 90.
    If median of data is 63, find the mode of the data. [*CBSE* 2011]

Answers

1. (*i*) 3 (*ii*) 3 (*iii*) 5.

2. (*i*) 12 (*ii*) 4

3. (*i*) 7.4; 7 (*ii*) 25

4. 3.33; 3.

5. 5 **6.** 7 **7.** $k = 9$; New mode = 12

8. 7; 7 **9.** (*i*) 3 (*ii*) 8

10. (*i*) Mean = 15.75, Median = 15, Mode = 10

(*ii*) Mean = 57, Median = 52, Mode = 52

(*iii*) 64