

1. If each observation of the data is increased by 5, then what happens to its mean? 1
 - a) is increased by 4 b) is increased by 5 c) is decreased by 4 d) is decreased by 5
2. If x be the mid-point and 1 be the upper- class limit of a class in a continuous frequency distribution. What is the lower limit of the class? 1
 - a) $x - 1$ b) $3x + 8$ c) $2x + 2$ d) $2x - 1$
3. Given a circle of radius 5 cm and centre O. OM is drawn perpendicular to the chord XY. If OM = 3 cm, then length of chord XY is 1
 - a) 4 cm b) 6 cm c) 8 cm d) 10 cm
4. **Assertion:** The class intervals 10-20, 20-30, 20 is included in which interval 20-30 1
Reason: The number is always included in the lower limit of the class interval.
 - a) Both Assertion and reason are correct and reason is correct explanation for Assertion
 - b) Both Assertion and reason are correct but reason is not correct explanation for Assertion
 - c) Assertion is correct but reason is false
 - d) Assertions is false and reason is correct
5. If the mean of the following data is 18.75, then find the value of p. 2

x_i	10	15	p	25	30
f_i	5	10	7	8	2

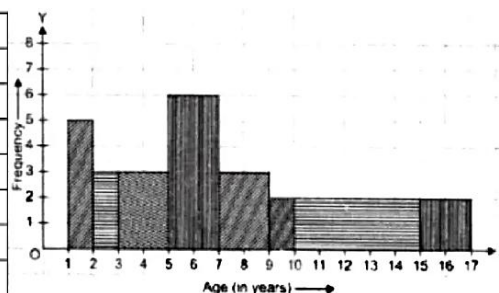
6. If two intersecting chords of a circle make equal angles with the diameter passing through their point of intersection, prove that the chords are equal. 3
7. Represent the following data by means of histogram. 5

weekly wages (in R's)	10-15	15-20	20-25	25-30	30-40	40-60	60-80
no. of workers (frequency)	7	9	8	5	12	12	8

8. In an effort to provide high-quality and safe playgrounds for kids, our reputable manufacturers adhere to the playground safety guidelines set forth by the Indian Consumer Product Safety Commission (CPSC) and the Indian Society for Advancement of Materials and Processing Engineering (ISAMPE). These organizations set the guidelines for determining the types of playground equipment that is appropriate for kids within specific age groups: 2-3 years, 3-5 years, 5-7 years, 7-10 years, 10-15 years, and 15-17 years. A random survey of the number of children of various age groups playing in a park was found as follows: 4



Age (in years)	Number of children
1 - 2	5
2 - 3	3
3 - 5	6
5 - 7	12
7 - 10	9
10 - 15	10
15 - 17	4



- i) In this question find the minimum class size.
- ii) Find the class limits of third class interval.
- iii) Find the adjusted frequency for class interval 5-7 and 7-10.
- iv) Find the class mark of last class interval.