## Holiday Homework

## Class: X

Subject: Mathematics

1. Determine the missing frequency x , from the following data, when mode is 67 .

| Class | $40-50$ | $50-60$ | $60-70$ | $70-80$ | $80-90$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency | 5 | x | 15 | 12 | 7 |

2. The average score of boys in the examination of a school is 71 and that of the girls is 73.The average score of the school in the examination is 71.8 . Find the ratio of the number of boys to the number of girls who appeared in the examination.
3. For helping poor girls of their class, students saved pocket money as shown in the following table:

| Money saved in (in <br> rupees) | $5-7$ | $7-9$ | $9-11$ | $11-13$ | $13-15$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. of students | 6 | 3 | 9 | 5 | 7 |

Find mean and median for this data.
4. Find the median of the following data.

| Class Interval | $5-15$ | $15-25$ | $25-35$ | $35-45$ | $45-55$ | $55-65$ | $65-75$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. Find the missing frequencies $\left(f_{1}, f_{2}\right.$ and $\left.f_{3}\right)$ in the following frequency distribution when it is given that $f_{2}: f_{3}=4: 3$ and mean $=50$.

| Class Interval | $0-20$ | $20-40$ | $40-60$ | $60-80$ | $80-100$ | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 17 | $\mathrm{f}_{1}$ | $\mathrm{f}_{2}$ | $\mathrm{f}_{3}$ | 19 | 120 |

6. Draw 'less than type' ogive \& 'more than type' ogive for the following distribution.

| Class Interval | $1000-1500$ | $1500-2000$ | $2000-2500$ | $2500-3000$ | $3000-3500$ | $3500-4000$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 18 | 22 | 25 | 15 | 11 | 9 |

7. If median height of 50 students of a class in the following frequency distribution is 144 cm , find the missing frequencies $x$ and $y$.

| Height (in <br> cms) | $125-130$ | $130-135$ | $135-140$ | $140-145$ | $145-150$ | $150-155$ | $155-160$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of <br> students | 2 | 4 | $x$ | $y$ | 8 | 9 | 5 |

8. Find the mode of the following data:

| Class Interval | $5-15$ | $15-25$ | $25-35$ | $35-45$ | $45-55$ | $55-65$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 6 | 11 | 21 | 23 | 14 | 5 |

9. Find the mean, median and mode of the following data:

| Class Interval | $0-20$ | $20-40$ | $40-60$ | $60-80$ | $80-100$ | $100-120$ | $120-140$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 6 | 8 | 10 | 12 | 6 | 5 | 3 |

10. Find the mean, mode and median of the following frequency distribution:

| Class | Frequency |
| :---: | :---: |
| $0-10$ | 4 |
| $10-20$ | 4 |
| $20-30$ | 7 |
| $30-40$ | 10 |
| $40-50$ | 12 |
| $50-60$ | 8 |
| $60-70$ | 5 |

