1. We will survey students in this classroom regarding the number of hours they typically work in a week to generate a dataset.
Number of work hours:
$0,0,0,0,0,0,6,8,8,8,10,12,12,14,15,15,18,20,20,20,20,22,24,24,24,25,25,30,35,36,38,40$
a. The frequency table and histogram for this dataset are shown below. Write down four words/phrases to describe the dataset to someone who cannot see the graphs.

| Values | Frequency | Percent |
| :---: | :---: | :---: |
| $0-9$ | 10 | $30 \%$ |
| $10-19$ | 8 | $24 \%$ |
| $20-29$ | 10 | $30 \%$ |
| $30-39$ | 4 | $12 \%$ |
| $40-49$ | 1 | $3 \%$ |


b. Calculate the mean of this dataset using the formula shown here. In English:

1. Add up all the scores
2. Divide by the number of scores

$$
M=\frac{\sum X}{N}
$$

$M=$
c. Determine the median of this dataset.

1. Count how many scores there are in the dataset.
2. If odd, take the middle number.
3. If even, take the average of the two middle numbers.

Median=
d. Determine the mode of this dataset..

1. Determine which score has the highest frequency in the dataset.
2. (There can be multiple modes in a dataset.)

Mode=
2. Data collected from hospital records reveal that the age of first hospitalization for psychosis for a sample of patients are:

$$
18,20,21,22,23,23,24,28,28,29,32,37,39
$$

a. Create a frequency table and histogram for this dataset. (Don't forget labels!) Write down four words to describe the dataset to someone who cannot see the graph.

b. Calculate the mean of this dataset using the formula shown here.

$$
M=\frac{\sum X}{N}
$$

$\mathrm{M}=$

|  |  |  |
| ---: | ---: | ---: |
| 18 |  |  |
| 19 |  |  |
| 20 |  |  |
| 21 |  |  |
| 22 |  |  |
| 23 |  |  |
| 24 |  |  |
| 25 |  |  |
| 26 |  |  |
| 27 |  |  |
| 28 |  |  |
| 29 |  |  |
| 30 |  |  |
| 31 |  |  |
| 32 |  |  |
| 33 |  |  |
| 34 |  |  |
| 35 |  |  |
| 36 |  |  |
| 37 |  |  |
| 38 |  |  |
| 39 |  |  |

d. Determine the mode of this dataset.

Mode=
3. The number of years of education for most members of the sample in the study of psychosis onset were:
$6,7,9,10,11,12,12,13,13,13,15,16$
a. Find the mean and median for this dataset.
$M=$

Median=
b. Why do the mean and median differ? (HINT: Use a histogram to help you discern the shape of the distribution and how it might be influence these measures).


