1. A quality control technician records the number of defective items found in samples of size 50 for each of 30 days. The data are as follows:

0 2 3 0 0 0 0 1 2 1 1 2 0 0 1
2 2 2 0 0 1 1 1 0 0 0 3 2 0 1

Give a frequency distribution for these data where each class is single-valued.

2. The following table gives the response times in minutes for 50 randomly selected 911 emergency calls classified as robbery in progressive calls. Group the data into five classes, using 1.0 to 2.9 as your first class. to give the frequency distribution table and the relative frequency distribution table

2.5	5.0	8.5	5.5	10.5
5.0	5.5	7.0	5.0	10.0
6.5	6.0	7.0	6.0	10.0
1.5	7.5	7.0	6.5	4.5
7.0	2.0	5.5	7.0	5.0
10.0	3.0	6.5	5.5	5.0
9.5	2.5	3.5	3.5	5.0
8.0	3.0	7.5	2.0	4.5
7.5	6.5	7.0	1.5	9.0
2.5	7.5	10.0	7.0	8.5

3. Refer to the frequency distribution of response times to 911 robbery in progress calls given in the table found in Exercise 2.
(a) What percent of the response times are less than seven minutes?
(b) What percent of the response times are equal to or greater than three minutes but less than seven minutes?
(c) What percent of the response times are nine or more minutes in length?

4. Construct a histogram for the frequency table found in Exercise 2.

Answers.

1.

Number of Defectives	Frequency
0	13
1	8
2	7
3	2

2.

Response	Frequency	Relative Frequency
1.0 → 2.9	7	7/50
3.0 → 4.9	6	6/50
5.0 → 6.9	16	16/50
7 → 8.9	14	14/50
9 → 10.9	7	7/50

3. (a) $7/50 + 6/50 + 16/50 = 29/50 = 58\%$

(b) $\frac{6}{50} + \frac{16}{50} = \frac{22}{50} = 44\%$

(c) $7/50 = 14\%$.

4.