

## Exercises on chapter 2

### Complete the table ,then answer the following questions

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Class interval (Age)	Mid – interval	Frequency Freq (f)	Cumulative Frequency	Relative Frequency R.f	Cumulative Relative Frequency
30 – 39	34.5	11	11	0.0582	0.0582
40 – 49	44.5	46	57	0.2434	0.3016
50 – 59	54.5	70	127	0.3704	0.6720
60 – 69	64.5	45	172	0.2381	0.9101
70 – 79	74.5	16	188	0.0847	0.9948
80 – 89	84.5	1	189	0.0053	1
Total		189		1	

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## Example :

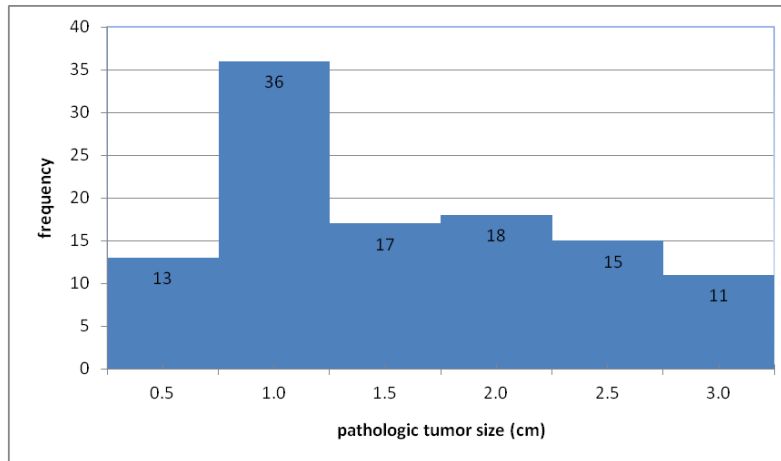
- From the above frequency table, complete the table then answer the following questions:
- 1-The number of objects with age less than 50 years ?  
• 57 objects
- 2-The number of objects with age between 40-69 years ?  
• 161 objects
- 3-Relative frequency of objects with age between 70-79 years ? 0.0847
- 4-Relative frequency of objects with age more than 69 years ?  
• 0.09
- 5-The percentage of objects with age between 40-49 years ?  
•  $0.2434 \times 100\% = 24.34\%$

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- 6- The percentage of objects with age less than 60 years ?  
•  $0.6720 \times 100\% = 67.2\%$
- 7- Variable is ...Age.....
- Type of variable is .....Quantitative – Continuous.
- 8. True class for the third interval (50-59] is ...(49.5-59.5].....  
d= 50-49=1  
d/2=0.5
- 9- The width of the interval ( W ) ?  
•  $59.5-49.5=10$
- 10- Sample size is .....189.....
- 11- The cumulative frequency of fourth interval ? 172
- 12- The Mid point for fourth interval 64.5

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the following histogram show the frequency distribution of pathologic tumor size ( in cm) for a sample of cancer patients:



## Answer the following

- 1- The variable is .....pathologic tumor size .....
2. The type of the variable is .....Quantitative – Continuous....
- 3- The sample size is ...13+36+17+18+15+11=110.....
- 4- The name of the chart.....Histogram.....
- 5- The number of cancer patient with lowest Pathologic tumor size is .....13 patients.....
- 6-The percent of cancer patients with approximate level of Pathologic tumor size = 2.....  
 $18/110 \times 100\% = 16.36\%$