

Use [Geogebra](#) to construct histograms for the data set using five classes. Copy and print each graph and include the class that has the greatest relative frequency and the class that has the least relative frequency? Describe any patterns.



### 37. Triglyceride Levels

Data set: Triglyceride levels (in milligrams per deciliter of blood) of a sample of patients

209	140	155	170	265	138	180	295	250
320	270	225	215	390	420	462	150	200
400	295	240	200	190	145	160	175	



### 38. Years of Service

Data set: Years of service of a sample of New York state troopers

12	7	9	8	9	8	12	10	9
10	6	8	13	12	10	11	7	14
12	9	8	10	9	11	13	8	



### 39. Retirement Ages

Data set: Retirement ages for a sample of doctors

70	54	55	71	57	58	63	65
60	66	57	62	63	60	63	60
66	60	67	69	69	52	61	73



### 40. Saturated Fat Intakes

Data set: Daily saturated fat intakes (in grams) of a sample of people

38	32	34	39	40	54	32	17	29	33
57	40	25	36	33	24	42	16	31	33

Use the number of classes stated below:



**41. Exam Scores**

Number of classes: 5

Data set: Exam scores for all students in a statistics class

83	92	94	82	73	98	78	85	72	90
89	92	96	89	75	85	63	47	75	82



**42. Children of the Presidents**

Number of classes: 6

Data set: Number of children of the U.S. presidents

*(Source: presidentschildren.com)*

0	5	6	0	3	4	0	4	10	15	0	6	2	3	0
4	5	4	8	7	3	5	3	2	6	3	3	1	2	
2	6	1	2	3	2	2	4	4	4	6	1	2	2	



**43. Pulse Rates**

Number of classes: 6

Data set: Pulse rates of students in a class

68	105	95	80	90	100	75	70	84	98	102	70
65	88	90	75	78	94	110	120	95	80	76	108



**44. Hospitals**


Number of classes: 8

Data set: Number of hospitals in each state *(Source: American Hospital Directory)*

15	100	56	74	360	53	34	8	213	116
15	38	21	143	97	59	76	110	83	51
23	116	55	91	75	19	108	14	25	14
73	40	30	213	154	97	36	181	12	63
29	121	378	36	91	7	61	71	40	15

- SC** 45. Use StatCrunch to construct a frequency histogram and a relative frequency histogram for the following data set that shows the finishing times (in minutes) for 25 runners in a marathon. Use seven classes.

159 164 165 170 215 200 167 225 192 185 235 240 225  
191 194 175 167 234 158 172 180 240 176 159 231

-  46. **Writing** What happens when the number of classes is increased for a frequency histogram? Use the data set listed and a technology tool to create frequency histograms with 5, 10, and 20 classes. Which graph displays the data best?

2 7 3 2 11 3 15 8 4 9 10 13 9  
7 11 10 1 2 12 5 6 4 2 9 15

*PRINT TWO SIDED TO SAVE PAPER*