

MATH 109

Worksheet : Histograms

1. The following chart shows the number of hurricanes in the North Atlantic for each year from 1950 to 2007. Draw a frequency histogram to represent the number of hurricanes in the North Atlantic over this 58-year period; then draw a histogram with a density scale to represent the number of hurricanes in the North Atlantic over this 58-year period. (This means that number of hurricanes is the variable that you are measuring) Be sure to show all appropriate calculations as discussed in class.

# hurricanes in year -	1950's	1960's	1970's	1980's	1990's	2000's
0	11	4	5	9	8	8
1	8	8	6	7	4	9
2	6	3	3	2	4	4
3	8	7	4	3	4	7
4	5	6	4	5	3	9
5	10	4	6	7	5	15*
6	4	7	6	4	9	5
7	3	6	5	3	3	6
8	7	4	5	5	10	
9	11	4	5	7	8	

*2005 set a record for the number of hurricanes developing in the North Atlantic

Source: The National Hurricane Center – www.nhc.noaa.gov/pastall.shtml

2. Individuals who graduated from Wake Forest University in May 2006 and who were working full time in December 2006 were surveyed for their starting salaries. Data from 200 such graduates is given below. Draw a frequency histogram to represent this data; then draw a histogram using a density scale to represent the data. Be sure to show all appropriate calculations as discussed in class.

(note: this survey and the data given are completely made up for the purpose of this problem) the problem is patterned after a problem in Introduction to the Practice of Statistics, by Moore & McCabe, 1999, pp. 35-36

Salary Range	Salary Range in \$1000	# graduates
$15000 \leq x < 20000$	$15 \leq x < 20$	8
$20000 \leq x < 25000$	$20 \leq x < 25$	16
$25000 \leq x < 30000$	$25 \leq x < 30$	42
$30000 \leq x < 35000$	$30 \leq x < 35$	54
$35000 \leq x < 40000$	$35 \leq x < 40$	38
$40000 \leq x < 50000$	$40 \leq x < 50$	22
$50000 \leq x < 60000$	$50 \leq x < 60$	12
$60000 \leq x \leq 80000$	$60 \leq x \leq 80$	8