Refer to Part 2 of 1.3 lesson for help with the following question

1) The number of hot dogs sold by a street vendor for each day in the month of June is recorded below

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112	98	108	128	24	30	89
106	48	34	16	71	122	71
102	118	53	76	76	25	72
52	33	122	33	109	109	110
116	21					

a) Construct a stemplot to display the data

Stem	Leaf
1	6
2	1 4 5
3	0 3 3 4
4	8
5	2 3
6	
7	1 1 2 6 6
8	9
9	8
10	2 6 8 9 9
11	0 2 6 8
12	2 2 8

b) On what percent of days were more than 100 hotdogs sold?

% > 100 = $\frac{12}{30}$ = 0.4 = 40%

2) Here are the number of homeruns that Hank Aaron hit in each of his 23 seasons. Make a boxplot for these data. Make sure to check for outliers.

13	27	26	44	30	39	40	34
45	44	24	32	44	39	29	44
38	47	34	40	20	12	10

Min = 10
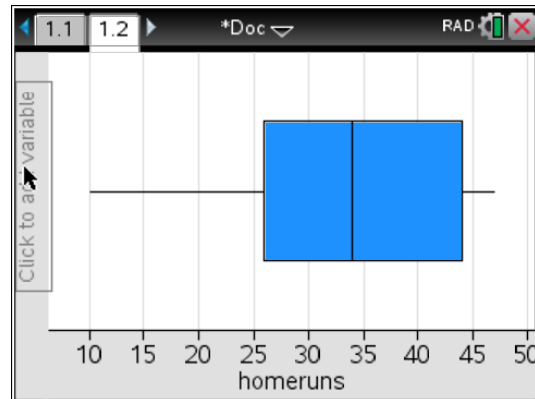$Q_1 = 26$
$Q_2 = 34$
$Q_3 = 44$
Max = 47
$IQR = 18$
Lower Threshold $= 26 - 1.5(18) = -1$
Upper Threshold $= 44 + 1.5(18) = 71$
Therefore no outliers

3) McDonald's sells several different types of beef sandwiches. Below are the 12 amounts of fat in order. Make a boxplot for these data. Make sure to check for outliers.

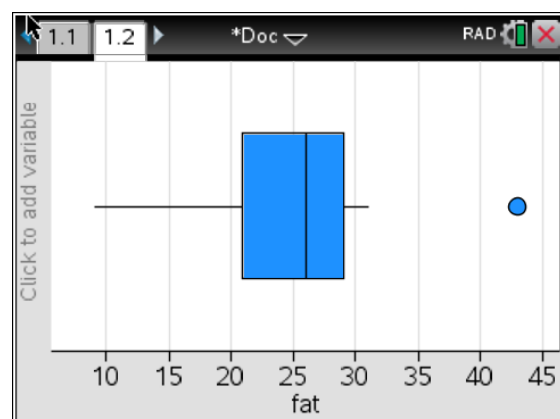| 9	12	19	23	24	26	26	27	29	29	31	43

Min = 9
$Q_1 = 21$
$Q_2 = 26$
$Q_3 = 29$
Max = 43
$IQR = 8$
Lower Threshold $= 21 - 1.5(8) = 9$
Upper Threshold $= 29 + 1.5(8) = 41$
Therefore 43 is an outlier

Refer to Part 4 of 1.3 lesson for help with the following question

4) The examination scores for a biology class are shown below.

68	77	91	66	52	58	79	94	81
60	73	57	44	58	71	78	80	54
87	43	61	90	41	76	55	75	49

a) Determine the range of the data.

$Range = 94 - 41 = 53$

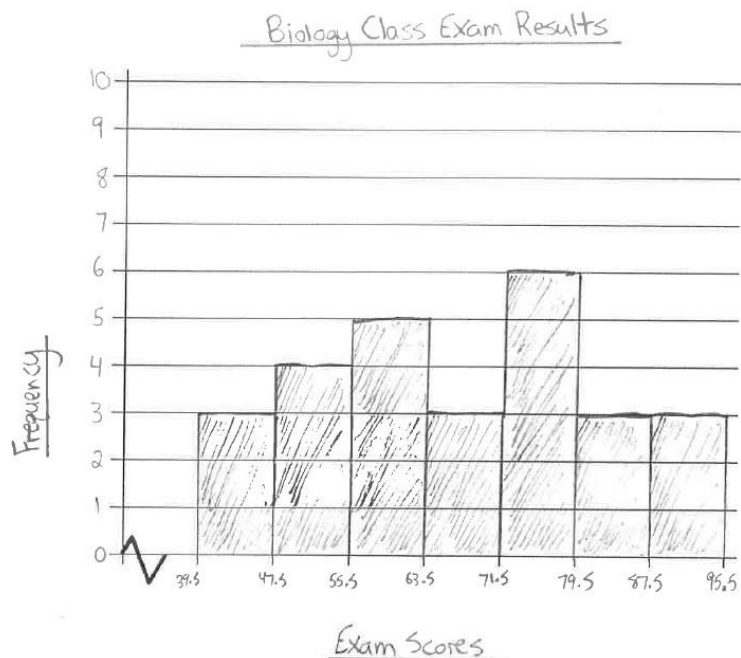**b)** Determine an appropriate bin width that will divide the data into 7 intervals.

$$Bin\ Width = \frac{rounded\ range}{\#\ of\ intervals} = \frac{56}{7} = 8$$

c) Create a frequency table for the data
d) Create a histogram of the data

Grade Interval	Frequency
39.5 – 47.5	3
47.5 – 55.5	4
55.5 – 63.5	5
63.5 – 71.5	3
71.5 – 79.5	6
79.5 – 87.5	3
87.5 – 95.5	3

Biology Class Exam Results

5) The bowling scores for a sample of league members are shown below.

154	257	195	220	182	240	177	228	235
146	174	192	165	207	185	180	264	169
225	239	148	190	182	205	148	188	

a) Determine the range of the data.

$Range = 264 - 146 = 118$

b) Determine an appropriate bin width that will divide the data into 6 intervals.

$Bin\ Width = \dfrac{rounded\ range}{\#\ of\ intervals} = \dfrac{120}{6} = 20$

c) Create a frequency table for the data
d) Create a histogram of the data

Bowling Score	Frequency
144.5 – 164.5	4
164.5 – 184.5	7
184.5 – 204.5	5
204.5 – 224.5	3
224.5 – 244.5	5
244.5 – 264.5	2