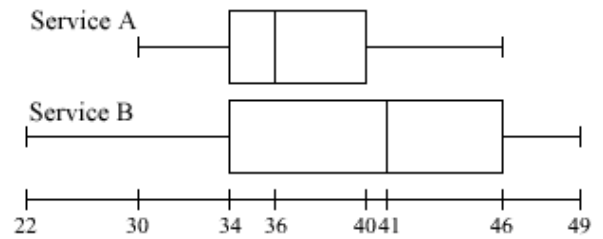


Answers: Routine Statistics Practice #2

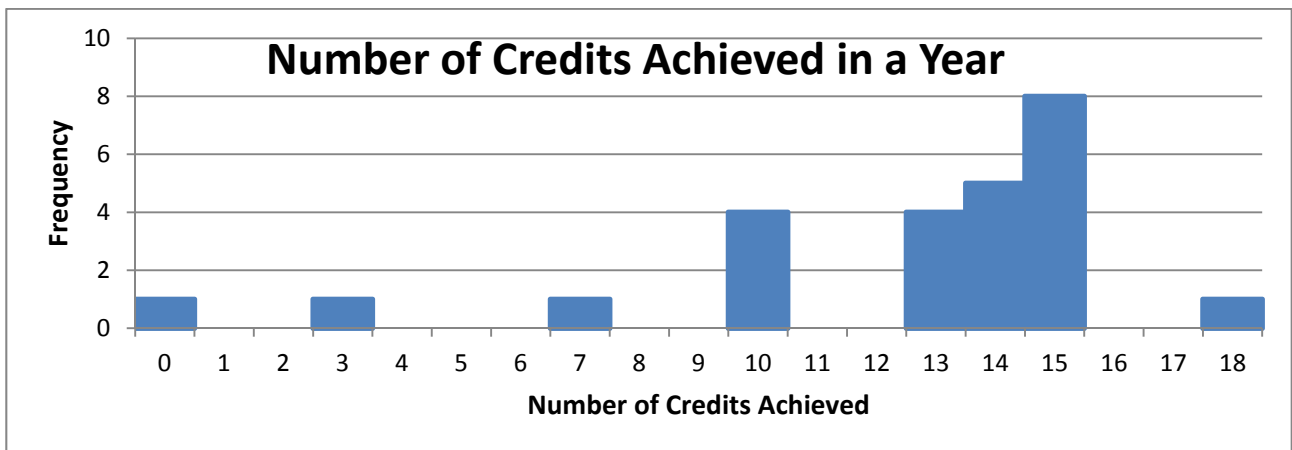
1. To the right are the delivery times for two services:



a) **Service A is typically faster**, although Service B has the very quickest speeds.

The IQR for Service A is better (34 to 40 minutes compared to 34 to 46). While the top 25% of deliveries for B are quicker (22 to 34 minutes compared to 30 to 34) there are many more very slow deliveries by Service B.

However **the median for A is inside the IQR for B**, so the difference in medians might be a result of sample variation, not a true difference. It depends a lot on how many delivery times were sampled. If the sample size is small (under 50 or so) we would have to say that we cannot be certain that Service A is typically quicker.



2. The graph shows the number of credits students received during a year in a Maths class.

Complete the frequency table below it using the information in the graph.

a) How many students got no credits?

One student

b) What was the most common number of credits achieved?

The mode was 15 credits

c) How many students were in the class?

Adding up gives 25 students

d) What was the median number of credits?

Middle of 25 = 13th one = 14 credits

e) What was the mean number of credits?

310 credits ÷ 25 students = 12.4 Credits

f) Why is the median larger than the mean?

Because of the couple of extremely low results (0 and 3) credits which are not balanced by any very high results.

Extreme results tend to affect means a lot.

# of credits	Frequency
0	1
1	0
2	0
3	1
4	0
5	0
6	0
7	1
8	0
9	0
10	4
11	0
12	0
13	4
14	5
15	8
16	0
17	0
18	1