Name: $\qquad$ Due: May 22, 2013

306 - Stats Assignment

1. A group of 35 students graduated from the "IPIC" Firefighter's School with the following results :

| 70 | 65 | 68 | 69 | 67 | 88 | 72 | 75 | 86 | 56 | 79 | 68 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 82 | 86 | 73 | 72 | 78 | 88 | 72 | 75 | 96 | 65 | 53 | 75 |
| 91 | 52 | 83 | 76 | 72 | 74 | 86 | 65 | 71 | 54 | 67 |  |

A) Complete the distribution table

| Results | Frequency |
| :---: | :---: |
| $[50-60[$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
| TOTAL |  |

C) Find the range (from the table) $\qquad$
D) Find the modal class $\qquad$
B) Construct a histogram to display this distribution.

E) Find the mean (from the table) $\qquad$
2. A polling firm surveyed 27 households in a given neighbourhood to find out how many telephones were used in each home. The resulting distribution was as follows :

| 4 | 3 | 2 | 2 | 5 | 6 | 2 | 1 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 3 | 2 | 5 | 2 | 6 | 2 | 1 | 2 |
| 3 | 1 | 2 | 5 | 7 | 2 | 3 | 3 | 3 |

A) Find the range. $\qquad$
B) Find the mode. $\qquad$
C) Find the median $\qquad$
D) Find the mean. $\qquad$
3. Students in a kindergarten class were asked for their favorite colour. The results were 8 students said red, 3 said green, 2 said yellow, 6 said blue and the remaining 3 couldn't decide. Make a distribution table for this data.

| Colour | Frequency |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
| Total |  |

A) What kind of data is this? $\qquad$
B) Find the range. $\qquad$
C) Find the mode. $\qquad$
D) Find the mean. $\qquad$

4. A Canadian chain of retail stores wants to survey its employees about the opening and closing times of its stores. The number of men and women employees is shown below.

| Age Gender | Men | Women |
| :--- | :---: | :---: |
| 18 to 33 yrs | 600 | 800 |
| 34 to 49 yrs | 300 | 1200 |
| 50 to 63 yrs | 900 | 400 |

The store plans to question a sample of 140 employees, using proper sampling techniques.
How many women aged 34 to 49 years should be in this sample? Show your calculations
5. A poll was conducted of students cell phone usage. The study showed that of the 20 students polled, 6 used their phones 1 time a day, 4 used them 2 times a day, 2 used them 3 times a day and the remaining students used their cell phones 4 times a day.
A) Construct a distribution table.
B) Construct a Bar Graph.

| \# times used | Frequency |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
| Total |  |


C) What kind of data is this? $\qquad$
D) What is the range? $\qquad$ E) What is the mode? $\qquad$
F) What is the average number of times that students use their cell phones? $\qquad$
6. For each day in August 2007, Louise had noted the number of rented campsites each day. The data that she collected is displayed below.

NUMBER OF CAMPSITES FOR THE 31 NIGHTS IN AUGUST 2007

| 20 | 35 | 35 | 35 | 40 | 40 | 42 | 45 | 45 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 50 | 65 | 75 | 85 | 90 | 95 | 110 | 115 | 118 |
| 120 | 120 | 130 | 130 | 132 | 135 | 140 | 145 | 150 |
| 150 | 150 | 150 | 150 |  |  |  |  |  |
| -4 |  |  |  |  |  |  |  |  |

Construct a box-and-whisker plot for the numbers in August 2007.
7. The box-and-whisker plots below show the distribution of heights of the Secondary 4 students at Happy Valley High School.


## Which of the following statements is TRUE?

A) $50 \%$ of the girls are exactly 160 cm tall.
B) There are more girls in the 160 cm to 168 cm range than there are in the 156 cm to 160 cm range.
C) $75 \%$ of the boys are 172 cm or more in height.
D) The difference in height between the tallest and the shortest boy is the same as the difference between the tallest and the shortest girl.

