2-3 Histograms Notes Key

**Histogram –** Is like a **bar** graph except that it is used to represent **continuous** data so the bars are touching.

- The **width** of each bar represents a range of numbers.

- the bars on a histogram are usually labeled with a lower and upper boundary.

**Lower Boundary –** the **lowest** value of the interval on a histogram

**Upper Boundary –** the **highest** value of the interval on a histogram

Example 1) The histogram below shows the number of airplanes scheduled to arrive at the Calgary International Airport on a particular day.

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a) How many airplanes are scheduled to arrive between 2:00 pm and 3:00 pm?

**Four airplanes are scheduled to arrive between 2:00 pm and 3:00 pm (14:00 – 15:00)**

b) What are the busiest times at the airport? How many airplanes are scheduled to arrive at these times?

**The busiest times are between 11:00 and 12:00, between 15:00 and 16:00, and between 17:00 and 18:00. Ten airplanes are scheduled to arrive during each of these timeframes.**

c) What is the quietest time?

**The quietest time at the airport is between midnight (24:00) to 6:00 am. Although it looks like 7:00 to 8:00 and 8:00 to 9:00 are just as quiet, with only two arrivals as well, the interval for idnight to 6:00 am is larger than the others.**

d) Are any airplanes scheduled to arrive between 4:00 am and 5:00 am?

**The histogram shows that two planes arrived between midnight and 6:00 am but you cannot be sure if one arrived at 4:00 am.**

Example 2) The histogram belown shows the salaries of the employees at Supersonic Businesses Inc.



a) How many employees earn over $100 000.00?

**2**

b) How many employees earn between $30 000.00 and $50 000.00?

**20**

c) Do individuals have a good chance of getting a good salary with this company? Explain you answer.

**16 people get paid under $40 000 per year, while 92 people get paid above $40 000 per year. Most likely you would have a good chance of getting a good salary.**