

Name: _____

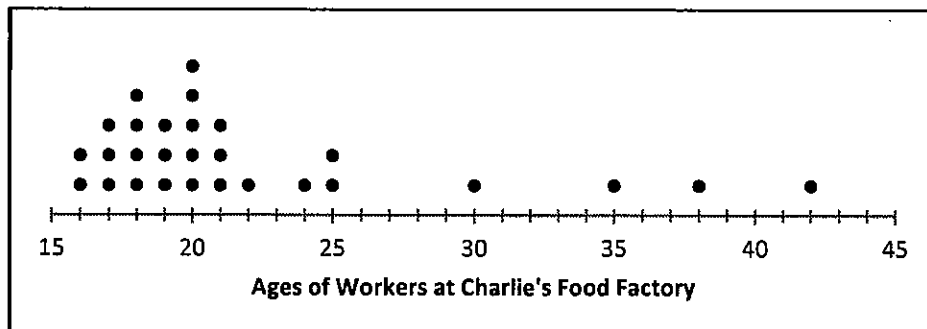
Date: _____

GRAPHICALLY REPRESENTING DATA COMMON CORE ALGEBRA I



Quantitative data on a single variable is often collected in order to understand how a characteristic of a group differs amongst the group members or between groups. When we ask a question like “How old is a typical fast food worker?” it is helpful to take a **survey** and then see graphically how the ages differ amongst the group.

Exercise #1: Charlie’s Food Factory currently employs 28 workers whose ages are shown below on a **dot plot**. Answer the following questions based on this plot.



(a) How many of the workers are 18 years old?

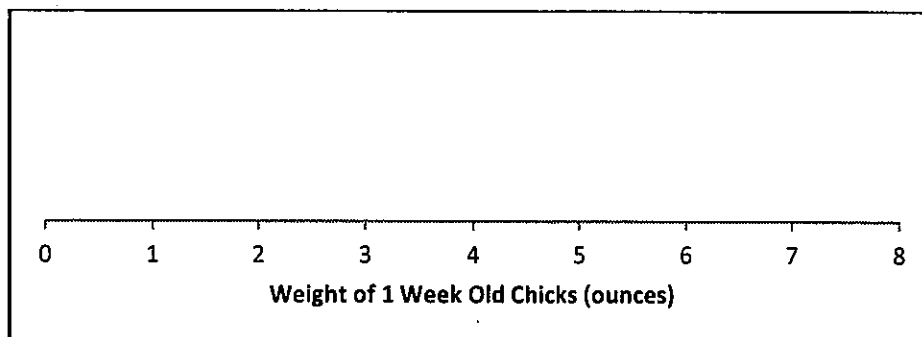
(b) What is the **range** of the ages of the workers?

(c) Would you consider this distribution symmetric?

(d) The mean (average) age for a worker is 22 years old. Why is this average not representative of a typical worker?

Exercise #2: A farm is studying the weight of baby chickens (chicks) after 1 week of growth. They find the weight, in ounces, of 20 chicks. The weights are shown below. Construct a dot plot on the axes given.

2, 1, 3, 4, 2, 2, 3, 1, 5, 3, 4, 4, 5, 6, 3, 8, 5, 4, 6, 3

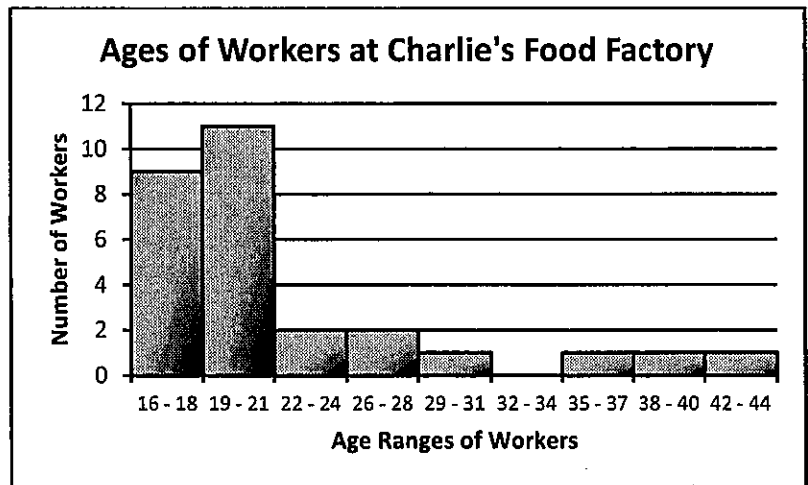


Exercise #3: The following histogram shows the ages of the workers at Charlie's Food Factory (from Exercise #1) but in a different format.

(a) How many workers have ages between 19 and 21 years?

(b) What is the disadvantage of a histogram compared to a dot plot?

(c) Does the histogram have any advantages over the dot plot?



Exercise #4 The 2006 – 2007 Arlington High School Varsity Boy's basketball team had an excellent season, compiling a record of 15 – 5 (15 wins and 5 losses). The total points scored by the team for each of the 20 games are listed below in the order in which the games were played:

76, 55, 76, 64, 46, 91, 65, 46, 45, 53, 56, 53, 57, 67, 58, 64, 67, 52, 58, 62

(a) Complete the frequency table below.

POINTS SCORED	TALLY	FREQUENCY
40 - 49		
50 - 59		
60 - 69		
70 - 79		
80 - 89		
90 - 99		

(b) Construct the histogram below.

