

Answer Key

Name _____ Date _____
 Teacher _____

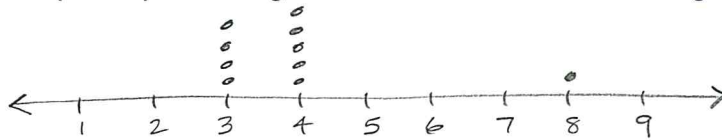
6th Grade Math (Statistics) Enrichment #4 (Lesson 28-1)

Ready:

1. Alex works in a grocery store after school. Here is the list of hours for a two-week period: 4, 3, 3, 4, 4, 4, 8, 3, 4, 3

- (a) Are there any outliers? If so, what are they? What might explain the outlier?
Yes, the 8 is an outlier. The 8 might represent a Saturday where Alex works 8 hrs in a single day.
- (b) Calculate the mean of the data.
4, 3, 3, 4, 4, 4, 8, 3, 4, 3 the mean = 4 hrs
- (c) Describe the effect of the outlier on the mean.
The outlier increases the mean. Without the outlier, the mean is 3.6 hours.

2. Construct a dot plot representing the hours Alex worked in the grocery store.



3. Briefly (in complete sentences) describe what the dot plot shows.

Alex usually works 3 to 4 hours after school. Once he worked 8 hours.

Set:

4. How many centimeters are in 7 feet, given that 1 inch \approx 2.54 cm.
1 inch = 2.54 cm, 7 feet = 84 inches

$$7 \text{ ft} \cdot \frac{12 \text{ in}}{1 \text{ ft}} \cdot \frac{2.54 \text{ cm}}{1 \text{ in}} = 213.36 \text{ cm}$$

5. Ms. Spain and Mr. France have donated a total of 90 hot dogs and 72 bags of chips for the class picnic. Each student will receive the same amount of refreshments. All refreshments must be used.

- (a) What is the greatest number of students that can attend the picnic *GCF = 18 student*
 (b) How many bags of chips will each student receive? *4 bags of chips*
 (c) How many hot dogs will each student receive? *5 hot dogs*

6. Write the algebraic expression:

- (a) 7 less than 3 times a number *$3n - 7$*
 (b) 3 times the sum of a number and 5 *$3(n + 5)$*
 (c) The quotient of the sum of x plus 4 and 2 *$\frac{x + 4}{2}$*

Go:

7. The following table lists four of the greatest New York Yankees' home run hitters with the number of homeruns each hit while a Yankee.

Adapted from: James M. Landwehr and Ann E. Watkins, Dale Seymour Publications, Mathematics, 1986, Pg. 160

Babe Ruth		Lou Gehrig		Mickey Mantle		Roger Maris	
Year	Home runs	Year	Home runs	Year	Home runs	Year	Home runs
1920	54	1923	1	1951	13	1960	39
1921	59	1924	0	1952	23	1961	61
1922	35	1925	20	1953	21	1962	33
1923	41	1926	16	1954	27	1963	23
1924	46	1927	47	1955	37	1964	26
1925	25	1928	27	1956	52	1965	8
1926	47	1929	35	1957	34	1966	13
1927	60	1930	41	1958	42		
1928	54	1931	46	1959	31		
1929	46	1932	34	1960	40		
1930	49	1933	32	1961	54		
1931	46	1934	49	1962	30		
1932	41	1935	30	1963	15		
1933	34	1936	49	1964	35		
1934	22	1937	37	1965	19		
		1938	29	1966	23		
		1939	0	1967	22		
				1968	18		

$$\text{Roger Maris } \frac{203}{7} = 29$$

Find the mean number of home runs for each player.

total 659
 $\text{Babe Ruth} = \frac{659}{15} \approx 43.9$

$$\text{Lou Gehrig: } \frac{493}{17} = 29$$

$$\text{Mickey Mantle: } \frac{536}{18} \approx 29.8$$

8. Create a dot plot using Babe Ruth's home runs. Identify the mean on your dot plot.

