

Answer Key

Name _____
Teacher _____

Date _____

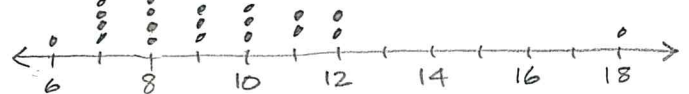
6th Grade Math (Statistics) Enrichment #5 (Lesson 28-2)

Ready:

1. All the students on your track team are timed as they run one mile. Here are the times rounded to the nearest minute:

7, 9, 12, 11, 8, 9, 18, 10, 6, 11, 9, 8, 7, 8, 10, 8, 12, 7, 7, 10

Construct a dot plot for the times listed above.



2. Find the median of the times with the outlier and without the outlier.

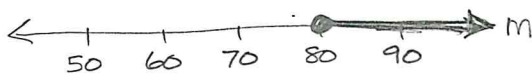
median w/outlier = 9 median w/out outlier = 9

3. What is the mean of the times?

mean = 9.35

Set:

4. A sixth grade class must raise at least \$100 to go on a field trip. They have collected \$20 so far. Write an inequality to represent the amount of money, m , the class still needs to raise. Represent this inequality on a number line.



$$m + 20 \geq 100$$

$$m \geq 80$$

5. Write an expression or equation for the following:

(a) An amusement park charges \$28 to enter and \$0.35 per ticket. Write an algebraic expression to represent the ~~number of crayons that Maria has~~ *amount of money required at the park*. $28 + 0.35x$
 $x = \# \text{ of tickets}$

(b) Andrew has a summer job doing yard work. He is paid \$15 per hour and a \$20 bonus when he completes the yard. He was paid \$85 for completing one yard. Write an equation to represent the amount of money he earned. $15x + 20 = 85$
 $x = \# \text{ of hrs}$

6. Evaluate the following expression when $x=4$ and $y=2$.

$$\frac{x^2 + y^2}{3} = \frac{4^2 + 2^2}{3} = \frac{16 + 4}{3} = \boxed{\frac{20}{3}}$$

Go:

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

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		

Source: Macmillan Baseball Encyclopedia, 4th edition

Find the median of the home runs for each player.

Babe Ruth 22 25 34 35 41 41 46 (46) 46 47 49 54 54 59 60 median = 46
 Lou Gehrig 0 0 1 16 20 27 29 30 (32) 34 35 37 41 46 47 49 49 median = 32

8. Referring back to the previous lesson (Enrichment #4), of the two values, mean and median, that you computed for each player, which do you think best describes the performance of each player? Explain why.

Mickey Mantle 13 15 18 19 21 22 23 23 (27 30) 31 34 35 37 40 42 52 54
 median = 28.5

Roger Maris 8 13 23 (26) 33 39 61
 median = 26

I think that the median best describes the performance because it is not affected by the outliers that appear in Lou Gehrig and Roger Maris' data.