## Math 111

## Chapter 12 Practice Test

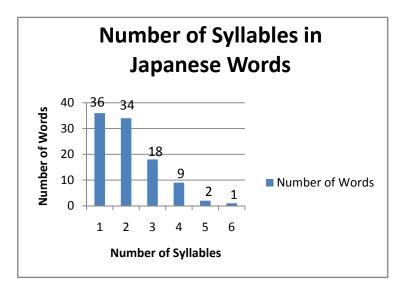
1.	If I wanted to survey 50 Cabrini College students about where they prefer to eat on campus, which would be the most appropriate way to conduct my survey?  a. Find 50 people in the cafeteria and ask them.  b. Find 25 people in the cafeteria and 25 people in Jazzman's.  c. Randomly survey different classes.							
2.	A is a subset of the population.							
3.								
	semester: A, C, D, B, A, A, C, F, B, C, A, D, B, B, D, C, B, C, B, D, A, F, B, C, B							
4.	The average age of the Cabrini College student has changed over the years. The ages of 25							
٦.								
	randomly selected students are as follows: 17, 19, 20, 37, 21, 18, 44, 22, 18, 25, 29, 48, 24, 19, 30,							
	27, 18, 36, 20, 46, 52, 21, 22, 36, 18.							
	Construct a grouped frequency distribution for the data. Use the classes: under 20, 21-30, 31 -							
	40, 41- 50, over 50.							
_								
5.	Make a histogram for the data in problem #4:							
6.	Create a stem and leaf plot for the data in problem #4:							

	Match the de	scription to t	the mea	isure o	f centr	al ten	dency.		
7.	Mean _								
8.	Median _								
9.	_								
10.	. Midrange _								
a. f	found by adding	g the lowest	and hig	hest d	ata val	ues ar	nd divi	ding by	2.
b. t	the data value	that occurs r	nost oft	en in a	datas	set.			
c. c	obtained by add	ling all the d	lata iter	ns ther	n dividi	ing the	sum	by the	number of items.
d. t	the middle-mos	st data value	in an o	rdered	list; if	there	are tw	o valu	es, you would take the mea
11.		_	-						some, this is a longer trip than for s it is to home.
21,	, 6, 13, 36, 22,	18, 104, 73, 3	158, 17						
Fin	nd the mean dis	tance of this	sample	e:					
	. Find the medi								
13.	. For the freque	ency distribu	tion, giv	ve the	media	n:			1
	. Find the mode								
15.	. The total spread o	_	ence be	etween	the h	ighest	and lo	west d	ata values in a set; indicates the

16.			35, 95, 90, 85, 10 andard deviatio	00, 85, 91 Find Find Find Find Find Find Find Find	I the mean and deviations from the mean for the from the mean):				
17.		is a	llwavs the sum o	of the deviations (fro	m above) for a set of data.				
			-	ation for the above o					
		ata Ite		Dev <sup>2</sup>	7				
					1				
					7				
					_				
					4				
					_				
					†				
			<b>L</b>	-L	_				
19.	A's st	andar	d deviation is 4 t		same test. Their means are the same, but section tandard deviation. What do you think this means? level?)				
20.	A bel	l curve	, or a	is					
21. If the mean SAT score for a group of high school seniors is 800 and a standard deviation									
		the score that is							
		a. :	2 standard deviations <b>below</b> the mean:						
		b. :	3 standard devia	itions <b>above</b> the mea	n:				
			The RANGE of so	cores between 3 stan	dard deviations <b>below</b> and 1 standard deviation				

22.	A describes how many standard deviations a data item in a normal distribution lies
	above or below the mean.
23.	When a data value is above the mean, it has a z-score.
24.	Joe takes a test in Biology and Math. Each test has data values that are normally distributed. He scores an 85% on his Biology test and an 80% on his Math test. The mean grade for the Biology test is 88% with a standard deviation of 3. The mean grade for the Math test is 78% with a standard deviation of 2. Which test did Joe do better in with respect to the rest of the class?
	For Biology: z score =
	For Math: z score =
	Summary:
25.	If I did better than 60% of the students taking the SAT, what was my percentile?
26.	If I did worse than 27% of the students taking the SAT, what was my percentile?
27.	The percentile is the first quartile, the percentile is the second, and the percentile is the third.
28.	In a survey of Cabrini College students, it was found that the average number of nights spent partying in the school year was 40. The data was normally distributed and had a standard deviation of 5. Using the table, find the percentile of students who party less than 50 nights in a school year. z score for 50 nights of partying:
29.	I took a survey of a random sample of 25 people. What is my margin of error?

- 30. Given the bar chart, answer the following questions:
  - a. Is the bar chart normal, skewed to the right, or skewed to the left?
  - Find the mean, median, and mode for the number of syllables in the sample of Japanese words.
     Mean:



Median:

Mode:

c. Are the measures of central tendency from part (b) consistent with the shape of the distribution that you described in part (a)? Explain.