

a. The distribution curve is bell shaped. b. The curve is symmetrical about its center.

d. the curve is asymptotic to the base line.

c. the width of the curve is determined by the skewness.

Republic of the Philippines Department of Education Region VIII (Eastern Visayas) Ormoc City Division



LINAO NATIONAL HIGH SCHOOL

Ormoc City

GENERAL DIRECTION: DO NOT WRITE ANYTHING ON THE TEST OUESTIONNAIRE, ALL ANSWERS MUST

BE REFLECTED	·			<u> 11NG O</u>	N IHE	<u>IESI (</u>	<u>JUESTIC</u>	<u>VNNAIKE</u> . A.	LL ANSWERS M
1. Which of the fol	llowing is a discr	ete rai	ndom variab	ole?					
a. the average amount of electricity consumed.									
b. the number of patients in a hospital									
c. the amount of paint used in repainting a building									
d. the average weight of cats in the adoption center.									
2. If three coins are tossed, which is not a possible value of the random variable for the number of tails?									
a. 0 b. 1 c. 2 d. 4									
3. Which of the following is NOT a TRUE statement?									
a. The value of a random variable could be zero.									
b. Random variables can only have one value.									
c. The probability of the value of a random variable could be zero.									
d. the sum of all the probabilities is always equal to one.4. Which of the formula gives the probability distribution shown by the table?									
4. Which of the for		wn by th	the table?						
			X	2	3	6			
			P(x)	1/2	1/3	1/6			
a. $P(x) = 1/x$ b. $P(x) = x/6$ c. $P(x) = 6/x$ d. $P(x) = 1/6$									
5. If $P(x) = x/6$, what are the possible values of X for it to be a probability distribution?									
a. 0, 2,3 b. 1, 2, 3 c. 2, 3, 4 d. 1, 1, 2									
For numbers 6- 8, refer to the probability distribution shown below.									
	X	0		1		2		3	
	P(X)	1/8		3/8		3/8		1/8	
6. What is the mean of the probability distribution?									
a. 1. 5 b. 1.2 c. 1.6 d. 1.8									
7. What is the variance of the probability distribution?									
a. 0.75 b. 1.00 c. 1.25 d. 0.50									
8. What is the standard deviation of the probability distribution?									
a. 1.00 b. 0.87 c. 1.12 d. 0.71									
For numbers 9-10, refer to the probability distribution shown below.									
	X	1	2		4	6		8	
	P(X)	1/5	1/5		1/5	1/	'5	1/5	
9. What is the mea	n of the probabil	itv dis	tribution?		<u> </u>	<u> </u>			
a. 1. 5 b. 2.0 c. 3.5 d. 4.0									
10. What is the variance of the probability distribution?									
a. 4.15 b. 6.35 c. 8.00 d. 7.50									
B. Identify whether	r the given varial	ole is	discrete or c	ontinuo	us. Encir	cle <u>D if</u>	it is disc	rete and C if	it is continuous.
11. the number of	hooks in the libra	rv							
12. the lifetime in hours of 15 flashlights.									
13. the number of tourists each day in museum.									
14. the capacity of water dams in a region.									
15. the weight of Grade 1 pupils									
16. In a NORMAL CURVE or NORMAL DISTRIBUTION, the graph is symmetrical and the skewness is .									
a. 1 b. 2	c. 0 d. 1.			J 11014,	me grap	11 13 3y11	micuicai	und the skew	
17. Which of the following is NOT A PROPERTY of the Normal Probability Distribution?									
17. Which of the following is NOTA PROPERTY of the Normal Propability Distribution?									

18. What is the measurement of the area under the curve?

- a. 1 b. 2
- c. 3
- d. 4
- 19. What is the area of the z-score 0.98?
 - b. 0. 3365
- c. 0. 3389
- d. 0.3106

20. What is the area of the z-score 2.45?

a. 0. 4929

a. 0.3159

- b. 0. 4918
- c. 0.4927
- d. 0. 4920

21. What is the area of the z- score 2.03?

- a. 0. 4772
- b. 0. 4793
- c. 0.4788
- d. 0.4744

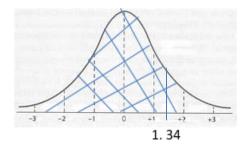
22. What is the area of the z-score 2.96?

- a. 0. 4984 b. 0. 4985
- c. 0. 4987
- d. 0. 4988

For numbers 23-25, refer to the given below.

$$x = 50$$
, $\sigma = 5$, $\mu = 40$

- 23. What is the z- score?
- a. 1
- b. 2
- c. -1 d. -2
- 24. Where does the z- score locates the raw score? a. within a sample b. within a population c. sample d. population
- 25. Where does the raw score lies with respect to the mean? a. equal with the mean b. below the mean c. above the mean For numbers 26-30, refer to the diagram below:



- 26. What is the value of z=1.34? a. -0.4099 b. -0.5000 c. 0.4099 d. 0.9099
- 27. What is the P (z > 1.34)? a. 0. 4099
- b. 0. 0901
- c. 0.9099
- d. 0.134
- 28. What operation is required to be able to find the area? a. addition b. subtraction c. multiplication d. division 29. Where does the z- score lies? a. above average c. below average c. within the population d. at par with the average
- 30. What can you say about the value of z=-1.34 and z=1.34? a. same b. the positive z has bigger area than the negative z c. the negative z has bigger area than the positive z d. none of the above.
- 31. What is the 95th percentile of a normal curve? a. 1. 65 b. 1.64 c. 1. 645 d. 1.654
- 32. What area did you use in locating the 95th percentile in the z-table? A. 0. 4500 b. 0. 4505 c. 0. 4495 d. 0. 4505 For number 33-35, refer to the problem below.

The results of a nationwide aptitude test in mathematics are normally distributed with m= 80 and s= 15. Find the raw score such that 70% of the cases are below it.

- 33. What is the nearest area in the z- table? A. 0.2000
- b. 0.1985
- c. 0. 1990
- d. 0. 1995
- 34. What is the z- value that corresponds to the nearest area as based on number 33? A. 0. 51 b. 0.52 c. 0.53 d. 0.54
- 35. What is the raw score such that 70% of the scores are below it? a. 85 b. 88 c. 87 d. 86
- 36. A certain population has a mean of 15. 4 and a standard deviation of 5.6. If random size 5 is taken from this population, which of the following statement is correct?
- a. the mean of the sampling distribution of the sample mean is equal to 15.4.
- b. the mean of the sampling distribution of the sample means is less than 15.4.
- c. the standard deviation of the sampling distribution of the sample means is 5.6.
- d. the standard deviation of the sampling distribution of the sample means is 15.4.
- 37. How many possible of size n=3 can be drawn from a population of size 12?
- b. 1728 c. 144 a. 36 d. 220

For numbers 38-40, refer to the problem below.

The average precipitation for the first 7 months of the year is 19.32 inches with a standard deviation of 2.4 inches. Assume that the average precipitation is normally distributed.

38. What is the probability that a randomly selected year will have precipitation greater than 18 inches for the first 7 months? A. 0.7088 b. 0.8523 c. 0. 4562 d. 0. 1258

- 39. What is the average precipitation of 5 randomly selected years for the first 7 months?
- a. 19.32 inches
- b. 22.4 inches
- c. 20.52 inches
- d. 15. 56 inches
- 40. What is the probability of 5 randomly selected years will have an average precipitation greater than 18 inches for the first 7 months?
- a. 0. 8907
- b. 0.2587
- c. 0. 4156
- d. 0.2879