



PSM INICET PYQ

Medsynapse by Dr. Nikita

Haddon matrix is related to:



- a) Injury prevention**
- b) Communicable diseases**
- c) Maternal and child mortality**
- d) Hypertensive disorders**



	Victim person	Agent vehicle	Environment factors
Preinjury	Cycle training adult supervision	Reducing numbers and speed	Improved visibility around school entrances
Injury	Helmet use	Separating vehicles and cyclists	Enabling children to cycle on footpaths
Postinjury	Access to first aid	Vehicle redesign	Access to health services

Medsynapse by Dr. Nikita

In a study, two groups of newborns are checked for their weights based on whether their mothers received food supplements or not. The appropriate test which can be used for comparing the data is:



- Chi square test
- Paired T-test
- unpaired T-test
- Fischer exact test

Medsynapse by Dr. Nikita

A researcher wants to do a study of blood levels of lipids among people who smoke and those who do not. But he is now concerned that the smokers might differ from non-smokers in their diet, exercise, etc as well. This concern is known as:



- a) Recall bias
- b) Information bias
- c) Selection bias
- d) Interviewer bias



Medsynapse by Dr. Nikita

Human Developmental Index is a composite measure, which uses?



- a) Life expectancy at age one, literacy and infant mortality
- b) Freedom, spice and right to express oneself
- c) Life expectancy at birth, infant mortality and quality of life
- d) Life expectancy at birth, knowledge and decent standard of living

Medsynapse by Dr. Nikita

Food safety and standards authority of India comes under which ministry:



- MEDSYNAPSE**
Where Concepts Meet Mnemonics
- a) Rural statistics
 - b) Ministry of health and family and welfare
 - c) Ministry of consumer affairs food and public distribution
 - d) Ministry of agriculture

Medsynapse by Dr. Nikita

In a survey of sleep apnea scores among 10 people, the highest sample of 58 was entered by mistake as 85. This will affect the result as:



- MEDSYNAPSE**
Where Concepts Meet Mnemonics
- a) Increased mean, decreased median
 - b) Increased mean, increased median
 - c) Increased mean, no change in median
 - d) No change in mean, increased median

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Disease transmitted by this vector



- a) Lyme disease
- b) Yellow fever
- c) Leishmaniasis
- d) Scrub typhus

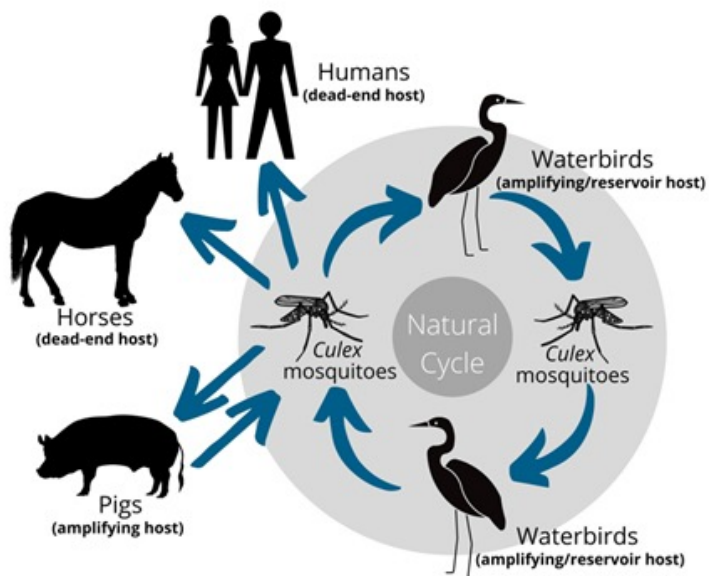
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Amplifier host in Japanese encephalitis is

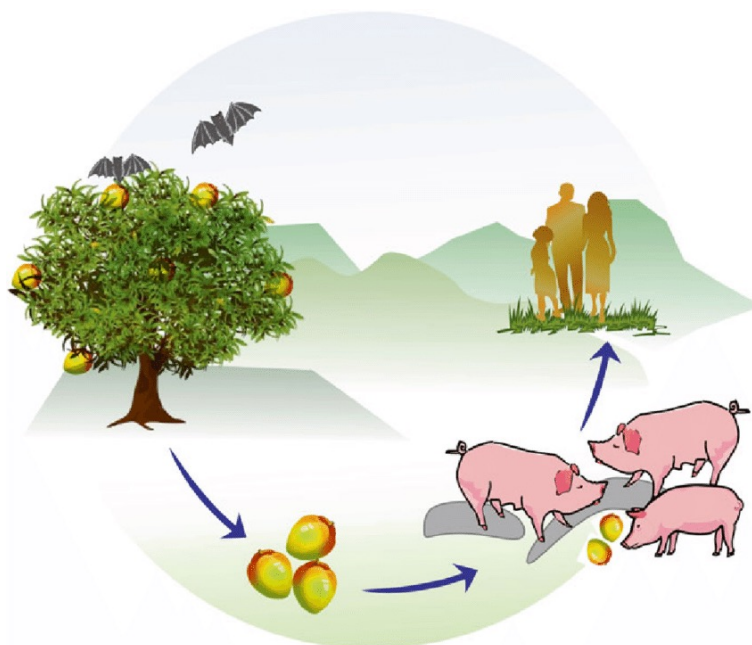


- a. Human
- b. Monkey
- c. Cyclops
- d. Pig

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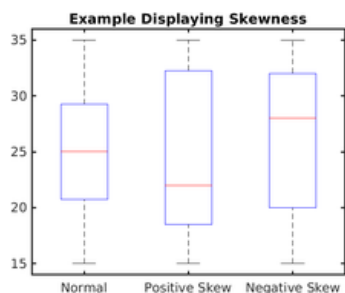


The following box plot shows the distribution of three sets of data around the mean. True statement is

- a) Negatively skewed
- b) Mean will be more than median
- c) Positively skewed
- d) Normal distribution



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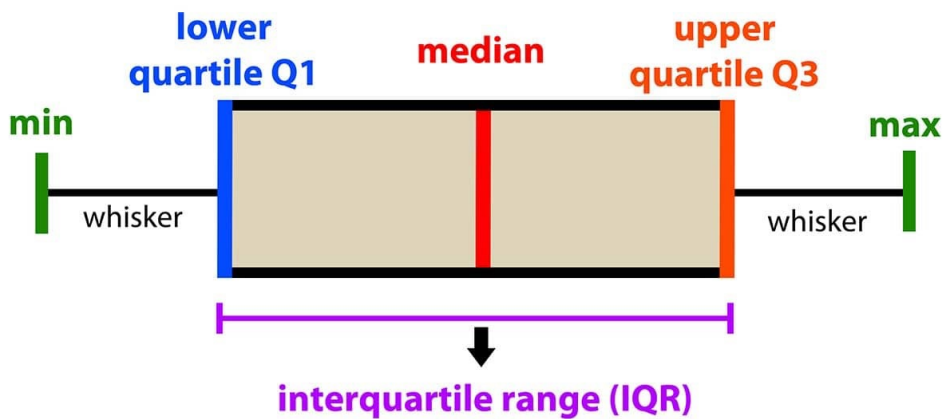


<p>Negative Skew Left Skew</p>	<p>Median towards top of data Median > Mean Upper quartile is smaller than lower quartile</p>
<p>No Skew Symmetric</p>	<p>Median in the centre of the data Median = Mean Upper quartile is equal to lower quartile</p>
<p>Positive Skew Right Skew</p>	<p>Median towards bottom of data Median < Mean Upper quartile is larger than lower quartile</p>

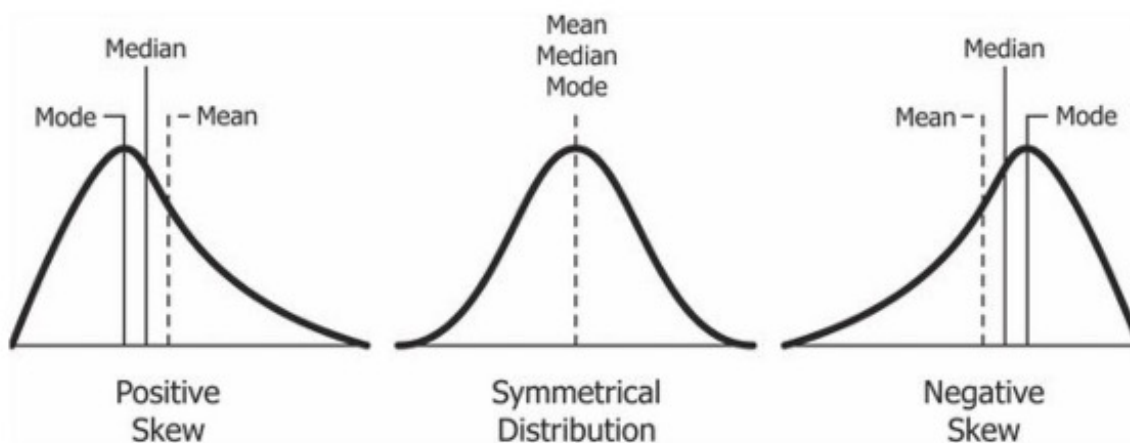
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introduction to data analysis: Box Plot



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What is following type of data description called?



5	3				
6	8	9	5		
7	9	2	0	2	
8	4	7	9	5	3
9	0	4			

- Stem and leaf diagram
- Forrest plot
- Box whisker plot
- Funnel plot

Medsynapse by Dr. Nikita

A latex agglutination test for detection of meningitis was approved. Calculate the sensitivity and specificity of the test based on the data given below:



	Test Positive	Test Negative
Diseased	27	3
Non-diseased	5	95

- Sensitivity 90%, Specificity 95%
- Sensitivity 95%, Specificity 90%
- Sensitivity 80%, Specificity 90%
- Sensitivity 75%, Specificity 95%

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	Disorder	No Disorder
Positive Test Result	True Positive (TP)	False Positive (FP)
Negative Test Result	False Negative (FN)	True Negative (TN)

Sensitivity = $TP/(TP+FN)$
 Specificity = $TN/(TN+FP)$
 PPV = $TP/(TP+FP)$
 NPV = $TN/(FN+TN)$

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A researcher selected all possible samples from a population and plotted their means on a line graph. This distribution is called as:



- Sample distribution
- Sampling distribution
- Population distribution
- Parametric distribution

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The mean systolic blood pressure was measured in a sample population of elderly females and came out to be 125 mm Hg with a standard deviation of 10. 95 percent of people would have blood pressure above:



- a. 105mmHg
- b. 110mmHg
- c. 115mmHg
- d. 140mmHg



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A drug, which does not cure a disease but decreases its symptoms and increases survival, leads to?



- a. Increased prevalence
- b. Increased incidence
- c. Decreased prevalence
- d. Decreased incidence



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In a group of 100 people, the average GFR is 85 ml/min with a standard deviation of 25. What is the range for 90% confidence interval?



- a) 81-89
- b) 80-90
- c) c. 75-95
- d) d. 70-100



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Confidence interval

Range of values within which the true mean of the population is expected to fall, with a specified probability.

CI = $1 - \alpha$. The 95% CI (corresponding to $\alpha = 0.05$) is often used. As sample size increases, CI narrows.

CI for sample mean = $\bar{x} \pm Z(SE)$

For the 95% CI, $Z = 1.96$.

For the 99% CI, $Z = 2.58$.



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