Percentiles and Quartiles (Find outliers)

Prior to percentile, you must know percentage.

Percentage: 1,2,3,4,5

Question % of the numbers that are odd?

% = # of numbers that are odd/ Total Numbers

3/5 =0.6 or 60 %

Percentile – Percentile is a value below which a certain percentage of observation lie?

1 This number is 25 Percentile means. 25% of entire distribution is less than that particular value.

Data set {2,2,3,4,5,5,5,6,7,8,8,8,8,8,9,9,10,11,11,12}

What is the percentile ranking of 10?

X=10: Sample size n= 20

Percentile Rank of x = Number of values below x

------------------------------------------------ x 100

n

= 16/20 x100 = 80 %

2 Main meaning is that 80 % of entire distribution is less than 10 observations.

What is the percentile ranking of value 11 =?

N = 20

X =11

Number of values below x = 17

17/20=100 =85%

3 What value exists at percentile ranking of 25%?

Value(x) = Percentile /100 x (n+1)

Value (x)= 25/100(20+1) =5.25 (Index position )

Data set {2,2,3,4,5,5,5,6,7,8,8,8,8,8,9,9,10,11,11,12}

5+5/2 = 5 is the value for 25 percentiles

4 Try to find 75 percentiles.

Percentile is 75

N= 20

Value (X) = 75/100(n+1)

Value(x) = 75/100 (21) = 15.75 is index position.

Data set {2,2,3,4,5,5,5,6,7,8,8,8,8,8,9,9,10,11,11,12}

9+9/2= 9 is x value