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***North South University***

*Department of Mathematics & Physics*

*Course: Pre-Calculus, Course Code: MAT 116-29*

***Spring- 2020, Final assignment (set-A),Marks:30***

**Question 1**.a) A company determines that its monthly sales **S** are related to its advertising budget x by the

Function  Where x is in thousands of dollars. Find the

monthly sales for the following advertising budgets: I) $0 II) $3000 and III) $10,000.

b) If 



 

**Question 2**.a) Find the function  so that where  also find the domain

of the given function.

b) The function is one to one .Find the inverse and check your answer where



**Question3**. a) Use transformations to graph of the function  determine the domain, range and horizontal asymptote.

b) Solve the equationexpress irrational solution in exact form and three decimal places.

**Question4** .a) A denotes the area of the sector of a circle of radius R formed by the central angle Find the missing quantity





b) Draw the graph and find the domain and range of the function 

**Question5**. find the value of each of the following





**Question6**. Define the periodic function. Graphing cosine with period change find the

domain and Range.