**Math Camp: Limits, Continuity, & Derivatives Worksheet**

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Q1). Evaluate using a table of function values. That is, input different values of x to justify your answer.

Q2). Determine whether the following function is continuous at

Justify your conclusion algebraically and graphically.

Q3).

A). What is the first derivative of ?

B). What is the second derivative of ?

C). Plot its first derivative, and its second derivative.

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Q4).

A). What is the first derivative of

B). What is the second derivative of

C). What is the first derivative of

D). What is the second derivative of

Q5).

What is the first derivative of

What is the second derivative

Q6).

What is the first derivative of ?

What is the second derivative of ?

Plot , its first derivative, and its second derivative.

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Q7). Evaluate using a table of function values. That is, input different values of x to justify your answer.

Q8). Determine whether the following function is continuous or discontinuous at the given points:

A). x=-1

B). x=0

C). x=3