**Summary:**

 variations. Quotient Rule. Using first and second derivatives to describe the shape of a graph.

**Question:**

For the function ,

1. Show that the first derivative is .
2. Use your results from part a) to show that the function has a stationary point at 
3. A sketch graph of the function has shown that it has two stationary points. Use your previous answers to find the **x value** of the other stationary point.

It can be shown that the second derivative of the function is .

1. Use the second derivative to describe the type of stationary points at  and the second stationary point from part c).

**Solution:**

1. 
2. 
3. 
4. 