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Ch. 2 LTQ 1 Retake 1 Assignment

1. What is a derivative?
2. What is the limit definition of a derivative and what algebra formula is it based off of?
3. What does it mean to be continuous?
4. What does it mean to be differentiable?
5. There are 5 places we discussed where a function is not differentiable. Please name those places and explain why each is not differentiable.
6. What 3 things could be occurring at a location of a horizontal tangent line?
7. How would you estimate the slope of a tangent line?
8. What does a negative tangent line slope imply about the function it is tangent to?
9. What does a positive tangent line slope imply about the function it is tangent to?
10. When sketching the graph of a derivative, how do you know where to put the x-intercepts? Explain.

Please do the following from the book: p. 103# 6, 10, 20, 22, 30, 37-40, 43-46, 59, 95