ECO138 II Quiz 2 (March 30, 2018)

ID:
Name:

For $Y = 10K^{1/2}L^{1/3}$, answer the following questions:

1. Show if the function is homogeneous function. If so, find its degree.

2. When you want to double the output, how much should each input be increased?

3. Suppose that both K and L are the functions of time (t). $K = K(t), L = L(t)$. Find the simplified expression for the relative rate of change for Y.

4. Find the linear function for the tangency line to the curve at the point (L, K) = (20, 45).
[Hint: Calculate the slope as $\frac{\partial K}{\partial L}$, and express the function as K = f(L)]