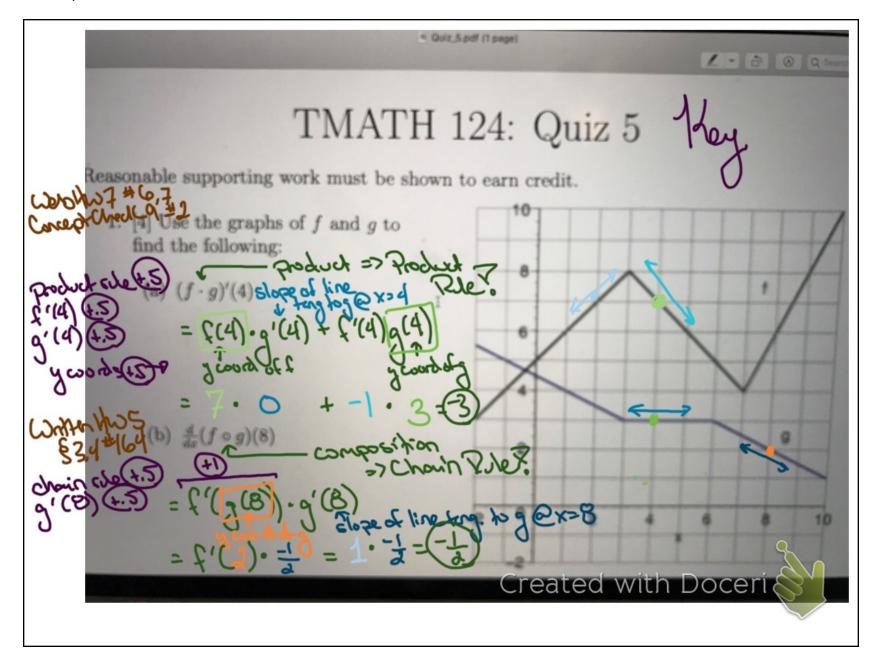
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2. A population of 3000 bacteria is introduced into a culture and grows. The population of bacteria, P, after t hours is modeled by

$$P(t) = 3000 \left(1 + \frac{4t}{50 + t^2} \right).$$

[1] Find how many bacteria there are after two hours.

[3] Find the rate that the bacteria is growing after two hours.

Find the line tangent to the graph of P when t=2.