

Alcohol rate

A person has drunk some alcohol, the rate in the blood is given, after t hours, by function f defined for positive number t by $f(t) = 6te^{-t}$ in g/L.

1. What's the rate after two hours?
2. What's the rate after ten hours?
3. Study the evolution of this rate
4. Work out the interval of time in which the rate is higher than 0.5 g/L.