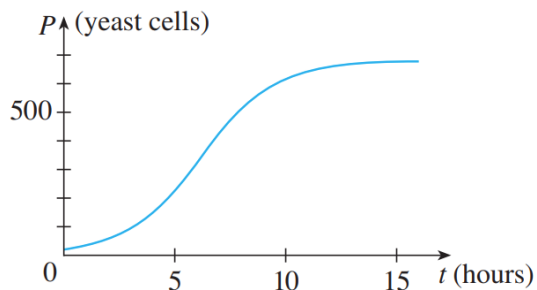


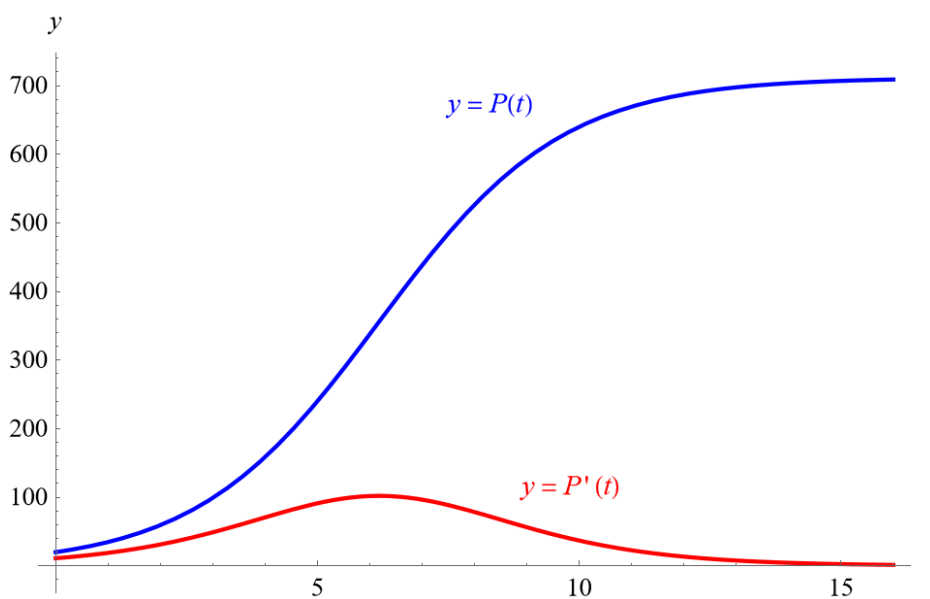
Exercise 12

Shown is the graph of the population function $P(t)$ for yeast cells in a laboratory culture. Use the method of Example 1 to graph the derivative $P'(t)$. What does the graph of P' tell us about the yeast population?



Solution

The value of P' is the slope of the tangent line to P at each value of t .



P' tells us how fast the yeast population is growing per hour at any time t .