EG02021 Mathematics

Feedback Quiz 6: Integration

Total Points 10

Name: **ID:**

1. Suppose that $a(t) = 12t^2 - 6$, the initial velocity is $v(0) = 8$ and the initial position is $s(0) = 12$. Find $s(t)$?

2. A population of bacteria grows at the rate of $P'(t) = 145e^{0.04t}$ **,** where *t* is the time measured in hours. Also, $P(0) = 8000$.

a) Find $P(t)$, the number of bacteria in the population at time *t*.

b) Find $P(6)$, the number of bacteria at time 6 hr.