February 9, 2009

Calculus II : Quiz 3

Name

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1. Let $P(t)$ be the population (in millions) t years after 2008. Suppose that $P(t)$ satisfies the differential equation

$P'(t) = 0.05P(t), \quad P(0) = 3.$

a) Find the formula for $P(t)$.

b) In how many years will the current population double.

2. Write the derivative of the following functions.

a) $y = arcsinx$

b) $y = arccosx$

c) $y = arctanx$