

Math 1A (7:30am – 8:20am)

Quiz 8 / Group Quiz 10

Fri Dec 5, 2008

SCORE: ___ / 20 POINTS

What day of the month is your birthday ?

___ ___

What are the last 2 digits of your address ?

___ ___

What are the last 2 digits of your zip code ?

___ ___

What are the last 2 digits of your social security number ?

___ ___

[IF YOU DO NOT HAVE A SOCIAL SECURITY NUMBER,
USE YOUR STUDENT ID NUMBER]

YOU MAY USE YOUR CALCULATOR BUT YOU MUST JUSTIFY ALL WORK USING ALGEBRA

Air is pumped into a balloon at 100 cm^3 per second. If the balloon maintains a spherical shape, how quickly is the surface area increasing when the radius is 5 cm ?

SCORE: ___ / 6 POINTS



Find parametric equations describing the portion of the curve $y = \sin x$ from $\left(\frac{\pi}{2}, 1\right)$ to $(0, 0)$.

SCORE: ___ / 4 POINTS

Simplify your answer.



Find the slope of the tangent line to the curve $x = t^3 - 2t$
 $y = t^2 - 3t$ at the point $(1, 4)$.

SCORE: ___ / 4 POINTS



Find the velocity and speed of an object whose position at time t is given by $x = \sin t$
 $y = \sin 2t$ each time the object passes through the origin.

SCORE: ___ / 6 POINTS