

KFUPM

Math101

Quiz#5

Sec.#32

Name:

Serial#:

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**Q1.** If  $f(t) = \sin(\pi t / 2)$ ,  $0 \leq t \leq 4$

When the particle slow down?

Q2. A particle is moving along the curve  $y = \sqrt{-x}$ . As it reaches the point  $(-4, 2)$ , the  $x$ -coordinate is decreasing at a rate of 3 cm/s. How fast is the  $y$ -coordinate of the point changing at that instant?

Q2. Find the limit  $\lim_{x \rightarrow 0} \frac{\sin 2x}{2x - \tan x}$