KFUPM MATH101 Quiz#5 Sec. 17

Name Sr.#

1) $Find \quad \frac{dy}{dx}$

a) $y = \ln(x^2 + y^2)$

b) $y = (cosx)^{\arctan(tanx)}$

2) The position of a particle is given by the equation

$$s = f(t) = \sin\left(\frac{\pi t}{3}\right), \quad 0 \leq t \leq 8$$

a) When is the particle speeding up?

b) Find the total distance.