

Your name: _____

MTH 132-020

Calculus I

F18

Quiz 4

1. Compute the derivative of each of the following functions:

(a) $(x^3 + 1)^{\frac{1}{5}}$

(b) $\sin(\cos^3(x))$

2. Let $s = t^4 + t^2 + 1$ be the position function of an object moving along a straight line.

(a) When does the object move forward?

(b) What is the total distance traveled between $t = -1$ and $t = 1$.

3. Find the slope of the tangent line to the curve $xy^4 + y^3 = 2$ at the point $P(1, 1)$.