

Quiz 8

Name: _____

Instructions: Answer the following questions. When computing derivatives, you do not need to use the definition.

1. (3pts) Compute the following:

(a) $\frac{d}{dx} [\arctan(x)]$

(b) $\frac{d}{dx} [\arcsin(x)]$

(c) $\frac{d}{dx} [\arctan(\cos(x))]$

2. (3 pts) Compute $\frac{d}{dx} [\log(x + \log(x))]$.

3. (4 pts) Use implicit differentiation to compute the equation of the tangent to the graph of $2 \cos(x) \sin(y) = 1$ at the point $(\frac{\pi}{4}, \frac{\pi}{4})$.