

Mathematics 1110H – Calculus I: Limits, Derivatives, and Integrals

TRENT UNIVERSITY, Summer 2025 (S62)

Quiz #3 – More Derivatives

*Due on Thursday, 26 June.**

1. Work out $\frac{d}{dx} \arccos(x)$ by hand, showing all the steps and simplifying your answer as much as you can. [2.5]
2. Work out $g'(x)$ by hand, where $g(x) = \ln\left(\frac{1 + \sin(x)}{\cos(x)}\right)$, showing all the steps and simplifying your answer as much as you can. [2.5]

Sonnet xlv

Euclid alone has looked on Beauty bare.
Let all who prate of Beauty hold their peace,
And lay them prone upon the earth and cease
To ponder on themselves, the while they stare
At nothing, intricately drawn nowhere
In shapes of shifting lineage; let geese
Gabble and hiss, but heroes seek release
From dusty bondage into luminous air.
O blinding hour, O holy, terrible day,
When first the shaft into his vision shone
Of light anatomized! Euclid alone
Has looked on Beauty bare. Fortunate they
Who, though once only and then but far away,
Have heard her massive sandal set on stone.

Edna St. Vincent Millay

* You should submit your solutions via Blackboard's Assignments module, preferably as a single pdf. If submission via Blackboard fails, please submit your work to your instructor by email or on paper. You may work together and look things up, so long as you write up your submission by yourself and give due credit to your collaborators and any sources you actually used.