| Name | ID | SEC 12 |

Q1) If $f(x) = \dfrac{g(x^2 h(x))}{x^3}$, $h'(2) = -1, h(2) = 1, g(4) = 8$ find the slope of the normal line to the curve $f(x)$ at $x = 2$.

Q2) Find the tangent line to $f(x) = \dfrac{\sin x}{1 - \cos x}$ at $x = 3\pi.$.

Q3) If $f(x) = |x-1| + |x+2|$, find $f'(0) + f'(3) + f'(-4)$.

Q4) Find all $x \in (0, \pi/2)$ at which $f(x) = \sec x + \csc x$ has horizontal tangent line.