

MTH 220 Quiz 8

1. Find $\frac{dy}{dx}$ as $y = (x^4 + 8)^{4x^2}$.

2. Find $g'(x)$ given that $g(x) = \arcsin(x^7 + 5x + 2) + \cot x + \csc x + \ln(2x)$.

3. The graph of a function $y = f(x)$ has the property that the slope of the tangent line at each point on the graph is equal to the one fourth of its y-coordinate. If the graph goes through the point $(4,4)$, then find a formula for $f(x)$.