

Full Name: _____

ID# _____

Ser# _____

Q1. Let $f(x) = \sqrt{1 + \sqrt{2x}}$. Use the **definition of derivative** to find $f'(x_0)$.

Q2. Use the limits to find all horizontal asymptotes to the curve of the function:

$$f(x) = \sqrt{4x^2 + 3x} - \sqrt{4x^2 + 6x}$$