

Quiz**Name**

1. Consider the function $f(x) = x^{\frac{1}{2}} + x^2$. For any $x \geq 1$, let $A(x)$ be the area under the graph of f from 1 to x . What is the function $A(x)$ equal to explicitly?

2. Use the power series expansion $\frac{1}{1-x} = 1 + x + x^2 + x^3 + \dots$ to approximate $\int_0^{\frac{1}{2}} \frac{1}{1-x} dx$ with an accuracy of three decimal places.