Math 181 Quiz 8 Version A

1. State the following derivative rules from memory:

\[
\frac{d}{dx} \arccos x = \quad \frac{d}{dx} \sec x = \quad \frac{d}{dx} \tan x = \\
\frac{d}{dx} \arcsin x = \quad \frac{d}{dx} \csc x = \quad \frac{d}{dx} \cot x = \\
\frac{d}{dx} \arctan x = \quad \frac{d}{dx} \log_{10} x = \quad \frac{d}{dx} 10^x = 
\]

2. Use the rules of calculus to compute the following derivatives:

(i) \( \frac{d}{dx} \sec(x^2) \)

(ii) \( \frac{d}{dx} \frac{\arctan x}{x} \)