Math 181 Quiz 7 Version C

1. Explain why $\dfrac{d}{dx}\arccos x = \dfrac{-1}{\sqrt{1-x^2}}$ using the calculus rule $\dfrac{d}{dx}f^{-1}(x) = \dfrac{1}{f'\big(f^{-1}(x)\big)}$ for differentiating the inverse function and trigonometry.

2. Find the following derivatives using the rules of calculus:

(i) $\dfrac{d}{dx}\sqrt{x^2+1}$

(ii) $\dfrac{d}{dx}\ln(\cos 2x)$