Reading Quiz #14

姓名：——————————— 系級：———學號：——————————— 分數：———————

Read Section 7.1(pages 413-419), Section 7.5(pages 477-483) and answer the following problems.

1. Suppose g is the inverse function of f and $f(4) = 5, f'(4) = \dfrac{2}{3}$. Find $g'(5)$.

2. Simplify the expression $\sin(\arctan x)$.

3. Evaluate the integral $\displaystyle\int_0^{\pi/2} \dfrac{\sin x}{1 + \cos^2 x}\, dx$.

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