

Math 176 Quiz 6 Version A

1. Find the following derivatives:

$$\frac{d}{dx}(5x + x^{-1}) = \boxed{\phantom{000000}}$$

$$\frac{d}{dx} \frac{1}{\sqrt{x}} = \boxed{\phantom{000000}}$$

2. Work only one of the following problems:

(i) Use implicit differentiation to find  $y'$  where  $\sqrt{1 + y^2} = 1 + x^2 - xy$ .

(ii) Find  $\frac{d}{dx} \frac{x\sqrt{1+x^2}}{2+3x^4}$