Math 182 Honors Quiz 3 Version A

1. $\dfrac{d}{dx}\dfrac{\sin 3x}{x^2 + 1}$

2. Find the length of the specified arc of the curve $y^2 = x^3$ between $(0,0)$ and $(4,8)$.

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3. $\displaystyle\int_0^2 x\sqrt{x^2+1}\,dx$

4. Find the volume of the solid generated by revolving the region given by $y = \sqrt{x}$, $x = 4$ and $y = 0$ around the y-axis.