

Homework 05

1. Section 3.5: problems 17, 33(a), 34(a), 49 (Hint: what is $\left.\frac{d \sin \theta}{d \theta}\right|_{\theta=c}$?) , 57, 58.
2. Section 3.5: Evaluate $\lim_{x \rightarrow 0} \frac{d}{dx} \left(\frac{\sin x}{x} \right)$.
3. Section 3.6: Do as many problems as you can from problems 51, 53, \dots , 77.
4. Assume $g(2) = 3$, $g'(2) = 0.1$, $f'(2) = 3$, $f'(3) = 4$ and $f'(4) = 5$. What is $\frac{d}{dx} f(g(x))$ at $x = 2$?
5. Section 3.7: problems 27, 31, 48, 51(a).