Section 3.5 Even Answers

2. $\dfrac{dy}{dx} = 2\cos x - \sec^2 x$

4. $\dfrac{dy}{dx} = \sec x + x\sec x\tan x$

6. $\dfrac{dy}{dx} = 3 + \tan x + x\sec^2 x$

8. $\dfrac{dy}{dx} = \dfrac{1 + \cos x + x\sin x}{(1 + \cos x)^2}$

10. $\dfrac{dy}{dx} = -\dfrac{1}{1 + \sin x}$

12. $y = \dfrac{8\pi - 16}{\pi^2}\left(x - \dfrac{\pi}{4}\right) + \dfrac{4}{\pi}$

16. Hint: use the quotient rule

18. Show that derivatives $\neq 0$

20. Find when $y' = \sec^2 x = 2$ $x = \pm\dfrac{\pi}{4}$

22. For the point P: $y_{\tan} = -4\left(x - \dfrac{\pi}{4}\right) + 4$ For the point Q: $y_{\tan} = 2$

28. Continuous at $x = 0$, $b = 1$. Differentiable at 0, not possible