

### Section 3.6 Even Answers

$$2. \frac{dy}{dx} = -5\cos(7-5x)$$

$$4. \frac{dy}{dx} = (2-3x^2)\sec^2(2x-x^3)$$

$$6. \frac{dy}{dx} = \frac{2\sin x}{(1+\cos x)^2}$$

$$8. \frac{dy}{dx} = \sec(\tan x)\tan(\tan x)\sec^2 x$$

$$10. \frac{dy}{dx} = \frac{\csc x}{\csc x + \cot x}$$

$$12. \frac{dy}{dx} = x^2(2x-5)^3(14x-15)$$

$$14. \frac{dy}{dx} = 2\sec x\sqrt{\sec x + \tan x}$$

$$16. \frac{dy}{dx} = (1+x^2)^{-\frac{3}{2}}$$

$$18. \frac{dy}{dx} = -4(1+\cos 2x)(\sin 2x)$$

$$20. \frac{dy}{dx} = \frac{5\sec^2 5x}{2\sqrt{\tan 5x}}$$

$$22. \frac{ds}{dt} = 4t\sin(\pi-4t) + \cos(\pi-4t)$$

$$24. \frac{ds}{dt} = \frac{3\pi}{2}\cos\left(\frac{3\pi}{2}t\right) - \frac{7\pi}{4}\sin\left(\frac{7\pi}{4}t\right)$$

$$26. \frac{dr}{d\theta} = 2\sec^3 2\theta + 2\sec 2\theta \tan^2 2\theta$$

$$28. \frac{dr}{d\theta} = (\theta \tan \theta + 2)\sqrt{\sec \theta}$$

$$30. y' = -\csc^2 x$$
$$y'' = 2\csc^2 x \cot x$$

$$34. 1$$