

SECTION 3.4 CHAIN RULE (DAY 2)

Evaluate the derivatives.

$$1. H(x) = \sqrt[3]{\frac{4-2x}{5}}$$

$$2. y = e^{\sec \theta}$$

$$3. f(x) = \frac{8}{x^2 + \sin(x)}$$

$$4. x(t) = \frac{1}{\sqrt{2}} \tan\left(\frac{\pi}{6} - x\right)$$

$$5. y = \frac{x e^{-\pi x^2/10}}{100}$$

$$6. y = \frac{e^2 - x}{5 + \cos(5x)}$$

$$7. \ y = e^{2t/(1-t)}$$

$$8. \ f(x) = \cos^3\left(\frac{8}{1+x^2}\right)$$

$$9. \ h(x) = (x + (x + \sin(2x))^5)^{1/2}$$

$$10. \ F(x) = (2re^{rx} + n)^p \text{ (Assume } r, n, \text{ and } p \text{ are fixed constants.)}$$