

Here are some problems to help practice using the Chain Rule

1. $\frac{d}{dx} [x^2 - 2x + 3] =$

2. $\frac{d}{dx} [(x^2 - 2x + 3)^2] =$

3. $\frac{d}{dx} [\sqrt{x^2 - 2x + 3}] =$

4. $\frac{d}{dx} [\sin(x^2 - 2x + 3)] =$

5. $\frac{d}{dx} [\sqrt{\sin(x^2 - 2x + 3)}] =$

6. $\frac{d}{dx} \left[\frac{(x^4 + 1)^7}{\tan(x^4 + 1)} \right] =$

7. $\frac{d}{dx} \left[\frac{(x^4 + 1)^7}{\tan(x^{10} + x)} \right] =$

8. $\frac{d}{dx} [\cos x \sin x \tan x] =$

9. $\frac{d}{dx} [\cos(\sin(\tan x))] =$

10. $\frac{d}{dx} \left[\tan(\sqrt[4]{x^2 + 2x - 10}) \right] =$

11. $\frac{d}{dx} \left[\sqrt[4]{\tan(x^2 + 2x - 10)} \right] =$

12. $\frac{d}{dx} \left[\tan^2(\sqrt[4]{x^2 + 2x - 10}) \right] =$