

1. Calculate $\frac{d}{dx}(x^2 + 17x - 9)^5$

2. $\frac{d}{dx} \sqrt{(2x^5 + x^3)^4 + 22x^2}$

3. A sphere's volume is increasing at a rate of 3m^3 per minute. How fast is its radius increasing when its radius is 1 metre?

4. Chapter 8 of the online textbook: Examples 8.11, 8.13