GROUP WORK 1, SECTION 3.1

Follow that Car

Here, we continue with the analysis of the distance $d(t) = 8\left(t^3 - 6t^2 + 12t\right)$ of a car, where d is in miles and t is in hours.

1. Draw a graph of $d(t)$ from $t = 0$ to $t = 3$.

2. Does the car ever stop?

3. What is the average velocity over $[1, 3]$? over $[1.5, 2.5]$? over $[1.9, 2.1]$?

4. Estimate the instantaneous velocity at $t = 2$. Give a physical interpretation of your answer.