

# Writing Maths

## Latex Guide!

This is some text and if we want to show an equation we just write  $f(x) = x^2$ , after that we can just continue with the text normally.

This is some text.

$$f(x) = x^2.$$

Some more text.

This is some text.

$$f(x) = x^2.$$

Some more text, now indented.

Some text introducing the equation.

$$f(x) = x^3. \tag{1}$$

You can see that the function (1) is different than the previous one.

$$\begin{aligned} J_v + J_{v+1} &\approx \int_{x_{v-1}}^{x_v+1} \gamma dx = \int_{x_{v-1}}^{x+2h} \gamma dx \\ &= 2hf_{v-1} + 2h(f_v - f_{v-1}) + \frac{\frac{8}{3}h - 2h}{2}(f_{v+1} - 2f_v + f_{v-1}) \\ &= \frac{h}{3}(f_{v-1} + 4f_v + f_{v+1}). \end{aligned}$$