



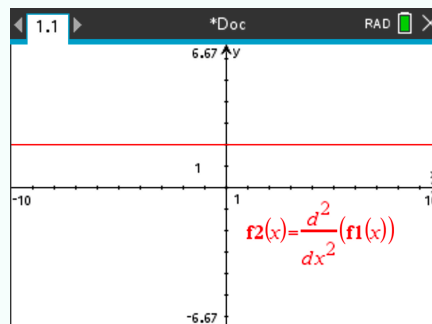
## 5.7 Second derivative

### 5.7.1 Graph the second derivative of a function


Suppose you want to graph the second derivative of the following function:

$$f(x) = x^2 + 3x + 1$$

1. Create a new document and select Add Graphs.
2. Write **f1(x)** as the function you want to study.
3. Write  $f2(x) = \frac{d^2 f1(x)}{dx^2}$ . To do this, press  and select .



**f2** is then the graph of  $f''(x)$ . You can thus know when  $f''(x) < 0$  or  $f''(x) > 0$  by looking at its graph.

Tip: deactivate the graphs you don't want for better readability by checking or unchecking  besides the function definition.