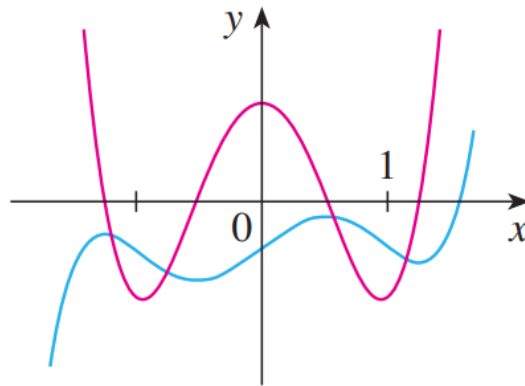
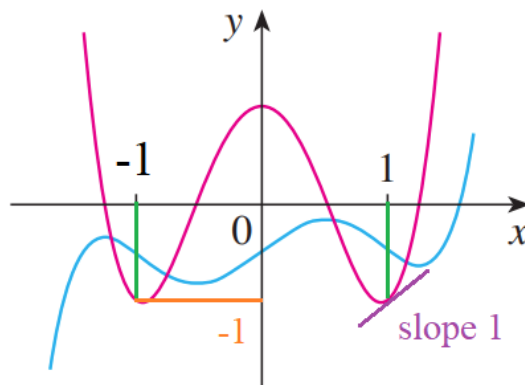


**Exercise 47**

The graphs of a function  $f$  and its derivative  $f'$  are shown. Which is bigger,  $f'(-1)$  or  $f''(1)$ ?

**Solution**

The graph of  $f'(x)$  is shown in red. Notice its value at  $x = -1$  is negative, whereas its slope at  $x = 1$  is positive.



Therefore,  $f''(1)$  is bigger than  $f'(-1)$ .