**Problem statement** Suppose \( f(x) = \frac{5x^2 - 10x}{e^x} \).

a) Graph \( y = f(x) \) in the window \( 0 \leq x \leq 5 \) and \( -3 \leq y \leq 1 \). Locate the apparent highest and lowest points on the curve.

b) Calculate \( f'(x) \) and use it to locate (algebraically) all those values of \( x \) at which the graph has a horizontal tangent line. Check your answer against a).

c) Use \( f'(x) \) to find an equation for the line that is tangent to the curve \( y = f(x) \) at \( x = 1 \). Draw the line on the graph in a) to check the result.

d) Use the graph in a) to guess the values of \( x \) where \( f'(x) \) is largest and where \( f'(x) \) is smallest. Then graph the equation \( y = f'(x) \) on your calculator to check your guesses.