

**Quiz 4 — MA16010 — September 18, 2017**

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1. (3 points) Find  $\frac{dy}{dx}$  for each of the following functions. You do not need to simplify your answer.

(a)  $y = (2x^2 + 5x)e^x$

(b)  $y = \frac{5x + 3}{2\cos(x) - 1}$

(c)  $y = \cos(x)\sin(x)$

2. (2 points) For a certain function  $f(x)$  (which you do not know), we do know that  $f(3) = 2$  and  $f'(3) = -4$ . Write an equation for the line tangent to  $f(x)$  at  $x = 3$ .