

Question 1 (7 marks)

Find $\frac{dy}{dx}$ for each of the following functions. There is no need to simplify your answers.

(a) $y = \ln(5x^2 - 2x)$

(2 marks)

(b) $y = \frac{4}{x} + \sqrt{7x+1}$

(2 marks)

(c) $y = \frac{\sin(9x-3)}{8e^x}$

(3 marks)