

3.

$$y = \frac{5x^2 + 10x}{(x + 1)^2} \quad x \neq -1$$

(a) Show that $\frac{dy}{dx} = \frac{A}{(x + 1)^n}$ where A and n are constants to be found.

(4)

(b) Hence deduce the range of values for x for which $\frac{dy}{dx} < 0$

(1)