

The equation of a curve is  $y = 3x + 1 - 4(3x + 1)^{\frac{1}{2}}$  for  $x > -\frac{1}{3}$ .

(a) Find  $\frac{dy}{dx}$  and  $\frac{d^2y}{dx^2}$ .

[3]

This image shows a full page of a worksheet designed for handwriting practice. It features 20 evenly spaced, horizontal dashed lines across the entire width of the page. The background is plain white, and there are no margins, text, or other markings present.

**(b)** Find the coordinates of the stationary point of the curve and determine its nature.

[4]

[illegible]