

11 The point $P(3, 5)$ lies on the curve $y = \frac{1}{x-1} - \frac{9}{x-5}$.

(i) Find the x -coordinate of the point where the normal to the curve at P intersects the x -axis. [5]

(ii) Find the x -coordinate of each of the stationary points on the curve and determine the nature of each stationary point, justifying your answers. [6]