7 The equation of a curve is $y = 4x^2 + \frac{y}{x^2} - 8$.

(a) A point P is moving along the curve in such a way that its y-coordinate is decreasing at 5 units per second.

Find the rate at which the x-coordinate of point P is changing when $x = 2$. [4]

(b) Find the coordinates of the stationary points of the curve and determine their nature. [5]