

Advanced Higher Maths
SQA 2019 Paper
Question 10



A curve is defined implicitly by the equation $x^2 + y^2 = xy + 12$.

- (a) Find an expression for $\frac{dy}{dx}$ in terms of x and y . 3
- (b) There are two points where the tangent to the curve has equation $x = k$, $k \in \mathbb{R}$.
Find the values of k . 2
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Answers:

(a) $\frac{y-2x}{2y-x}$

(b) $k = \pm 4$