Cambridge International AS & A Level

Mathematics

9709/12

Paper 1 Pure Mathematics 1

May/June 2025

Question No (2)

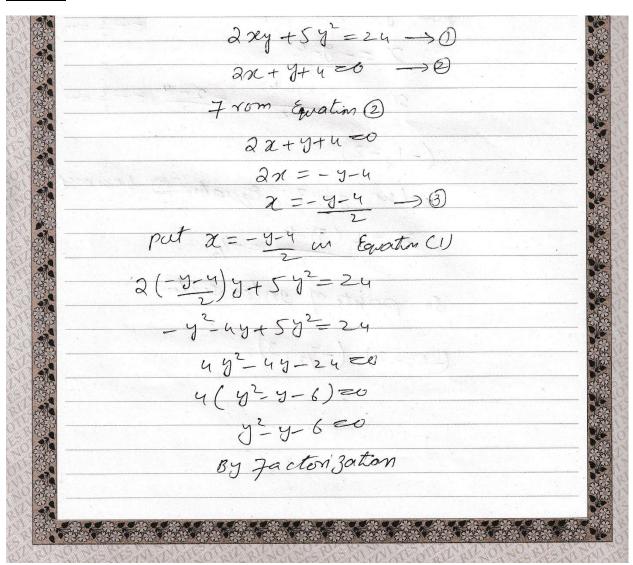
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Question No (2)

Find the coordinates of the points of intersection of the curve and the line with equations

$$2xy + 5y^2 = 24$$
 and $2x + y + 4 = 0$

Solution:



$$y^{2}-3y+2y-6=0$$
 $y(y-3)+2(y-3)=0$
 $y=3, y=-2$

put $y=-2$ in Equation (3)
$$2=-\frac{y-4}{2}$$

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when $y=3$, Equation (3) becomes
$$2=-\frac{y-4}{2}=-\frac{$$