	1.	The	curve	C has	equation
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$$px^3 + qxy + 3y^2 = 26$$

where p and q are constants.

(a) Show that

$$\frac{\mathrm{d}y}{\mathrm{d}x} = \frac{apx^2 + bqy}{qx + cy}$$

where a, b and c are integers to be found.

**(4)** 

Given that

- the point P(-1, -4) lies on C
- the normal to C at P has equation 19x + 26y + 123 = 0
- (b) find the value of p and the value of q.

**(5)**