

- 10** A circle has equation  $x^2 + y^2 + 4y - 21 = 0$  and a straight line has equation  $2x + y - 8 = 0$ . The line intersects the circle at two points.

**(a)** Find the coordinates of these two points of intersection.

[4]

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

- (b)** The circle has centre  $C$  and the two points of intersection are denoted by  $A$  and  $B$ .

Find the area of the triangle  $ABC$ .

[3]