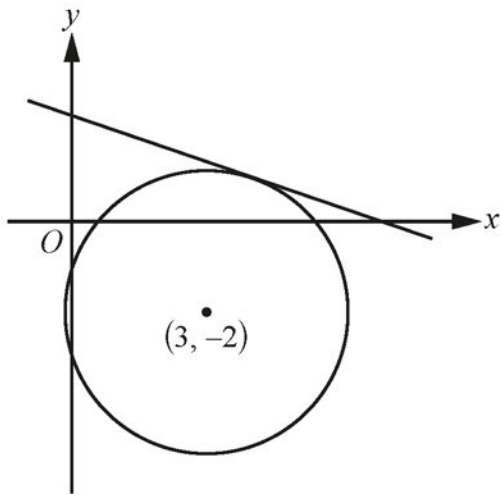


6 In this question you must show detailed reasoning.



The diagram shows the line  $3y + x = 7$  which is a tangent to a circle with centre  $(3, -2)$ .

Find an equation for the circle.

[6]