

M8 = 11 days to go!

12 A circle has centre $(0,0)$ and radius 5

(a) Show that the point $P(3, -4)$ lies on the circle.

[2]

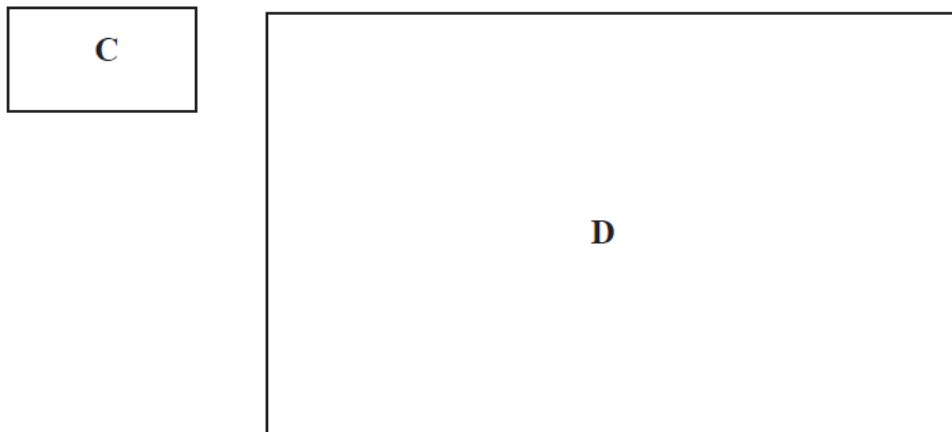
(b) Find the coordinates of the point where the tangent to the circle at point P meets the x axis.

Answer _____ [6]

Write $2.1\dot{6}\dot{5}$ as a mixed number.
Give your answer in its simplest form.

In the diagram rectangle **C** has been enlarged by a scale factor of 4 to give rectangle **D**.

How many times bigger is the area of rectangle **D** than the area of rectangle **C**?



Answer _____ times bigger [2]

2. Solve the equations



$$xy = 24$$
$$x = y - 2$$