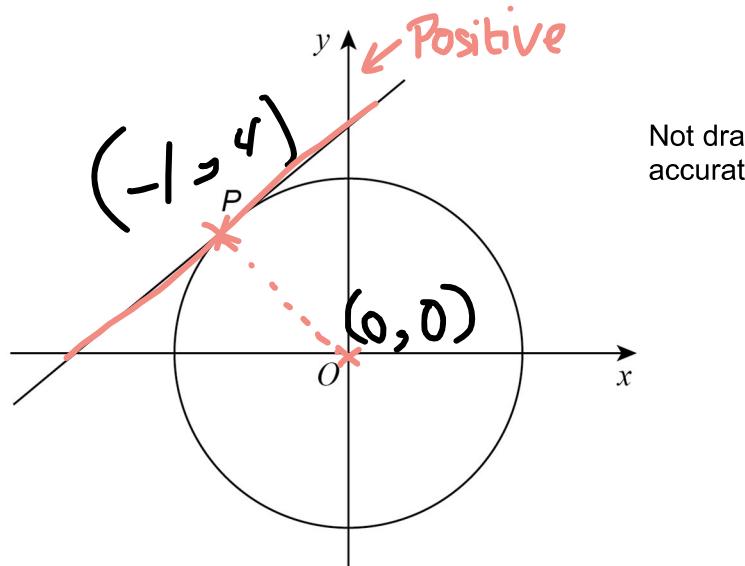


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$P(-1, 4)$  is a point on a circle, centre  $O$  ← origin



Work out the equation of the tangent to the circle at  $P$ .

Give your answer in the form  $y = mx + c$

[4 marks]

$$y = mx + c$$

$$m = \frac{\Delta y}{\Delta x}$$

$$m = -\frac{4}{1} \Rightarrow -4$$

Perpendicular = negative reciprocal.

$$y = -\frac{1}{4}x + c$$

$$4 = -0.25 + c$$

$$c = 4.25$$

Answer  $y = \frac{1}{4}x + 4.25$

