

1. The line  $l$  passes through the points  $A(3, 1)$  and  $B(4, -2)$ .

Find an equation for  $l$ .

looking for  $y = mx + c$

$$\text{gradient, } m = \frac{-2-1}{4-3} = -3 \quad (2 \text{ marks})$$

at  $A$ ,

$$1 = -3(3) + c \Rightarrow c = 10$$

so,

$$y = -3x + 10 \quad (1 \text{ mark})$$

(3)