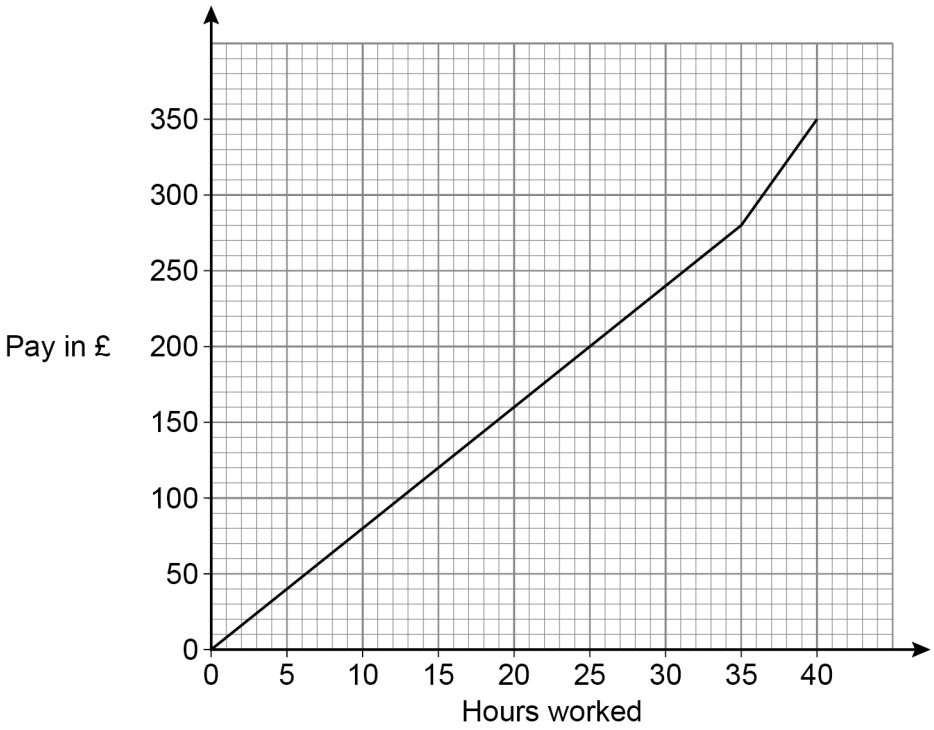
1 The graph shows how much Molly is paid for working for up to 40 hours.

She receives

a basic rate of pay for the first 35 hours worked

a higher rate of pay for the next 5 hours worked.



Work out the difference between the higher rate of pay and the basic rate of pay.

Give your answer in £ per hour.

[3 marks]

Basic : $\frac{£280}{35\text{ h}}$ = £8 per hour (1)

Higher : $\frac{£(350-280)}{5\text{ h}}$ = $\frac{£70}{5\text{h}}$ = £14 per hour (1)

14 − 8 = 6

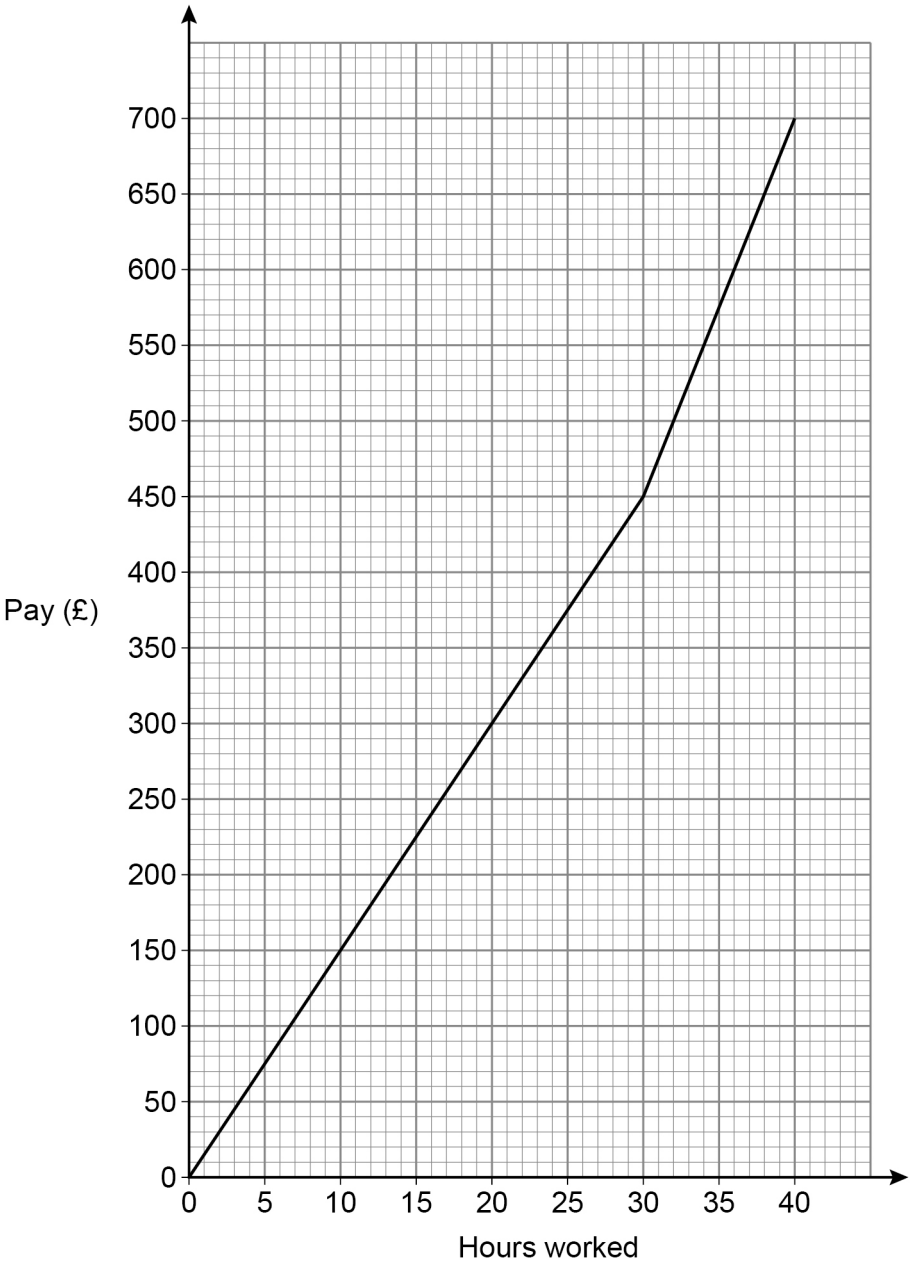
Answer £ 6 (1) per hour

2 In a week, Samir is paid

a basic hourly rate for the first 30 hours worked

an overtime hourly rate for any extra hours worked.

The graph shows his pay for working up to 40 hours in a week.



Work out the ratio basic hourly rate : overtime hourly rate

Give your answer in its simplest form.

[3 marks]

Basic hourly rate $= \frac{450}{30} = 15$ (1)

Overtime hourly rate $= \frac{(700-450)}{40-30} = \frac{250}{10} = 25$ (1)

ratio $= 15 : 25$

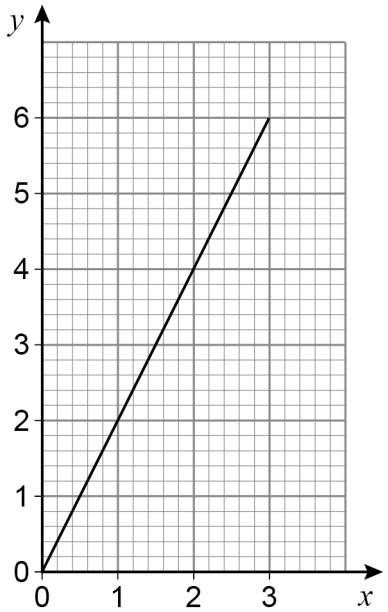
$\div 5$

$= 3 : 5$

Answer 3 : 5 (1)

3 Craig wants to draw a graph, for values of x from -3 to 3,
where the x-coordinate and y-coordinate are always in the ratio 2 : 1

Here is his graph.



Make two criticisms of Craig's graph.

[2 marks]

Criticism 1 The graph starts from $x = 0$, not $x = -3$. (1)

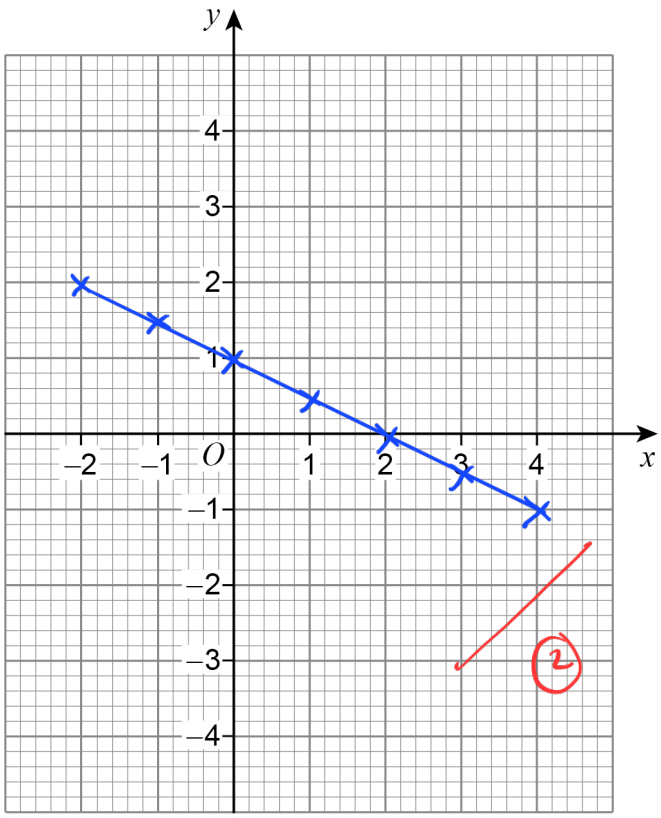
Criticism 2 The graph is $y = 2x$, not $y = \frac{1}{2}x$ (1)

4 Draw the graph of $y = 1 - \frac{1}{2}x$ for values of x from –2 to 4

[3 marks]

x	-2	-1	0	1	2	3	4
y	2	1.5	1	0.5	0	-0.5	-1

(1)



(2)