

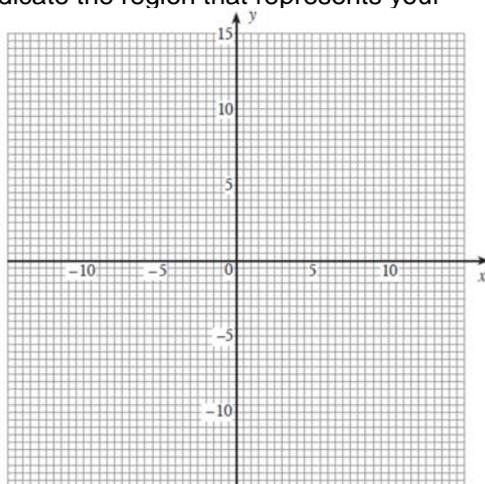


Skills: Draw the region which satisfies all of the following inequalities, making sure that you clearly indicate the region that represents your answer.

$$x + y \leq 8$$

$$y \geq 2x + 5$$

$$x \geq -3$$



Top Tips!

Remember **y=number** is a **horizontal line** going through that number on the y-axis and **x = number** is a **vertical line** going through that number on the x-axis!

Equations of the form 'y = mx + c' are easier to draw so rearrange the equation if you need to!

Negative gradient ↙

Positive gradient ↗

Examination Question:

2014 Summer Link Applications U2 Higher Q8

A restaurant needs some new pieces of crockery. The crockery the restaurant needs are dishes and plates.



8(a) Line $d+p = 25$ drawn correctly	B1	FT their inequalities for least 1 line is correct
Line $3d+2p = 60$ drawn correctly	B1	
The correct region indicated	B1	
(b) Any correct point from the correct region, using whole numbers only	B1	FT from 2 lines with at least 2 correct and similar region. Do not accept p(plates) =
	4	

The dishes and plates are available to buy in packs. There are 3 dishes or 2 plates in each pack. The restaurant cannot afford to buy more than 25 packs altogether. The restaurant wants to buy at least 60 new pieces of crockery. The information given can be represented by the inequalities,

$$d + p \leq 25$$

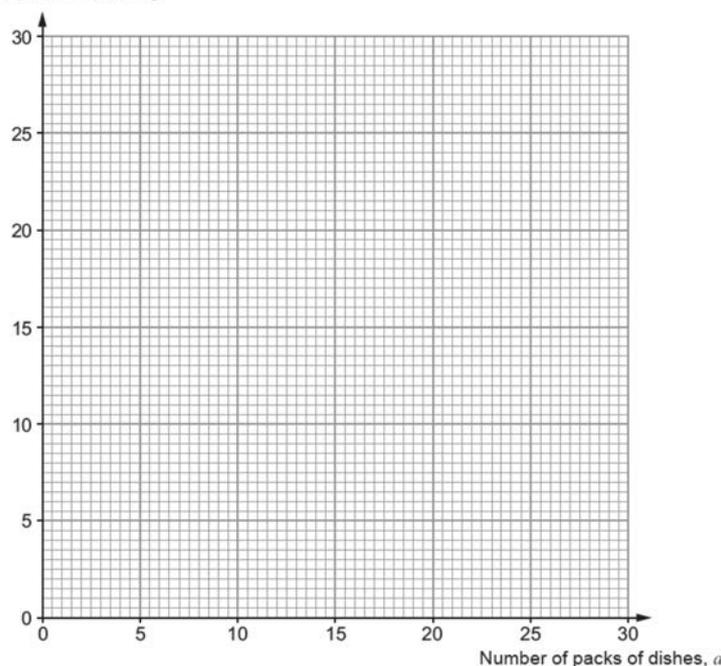
$$3d + 2p \geq 60$$

where,

- d represents the number of packs of new dishes bought, and
- p represents the number of packs of new plates bought.

Use the graph paper opposite to find the region that is satisfied by the inequalities. (3)

Number of packs of plates, p



The restaurant decides to order some dishes and some plates. Complete the order form below by selecting a suitable number of packs of dishes and packs of plates for the restaurant to buy. (1)

Crockery	Number of packs to buy
Dishes	
Plates	



Skills: Draw the region which satisfies all of the following inequalities, making sure that you clearly indicate the region that represents your answer.

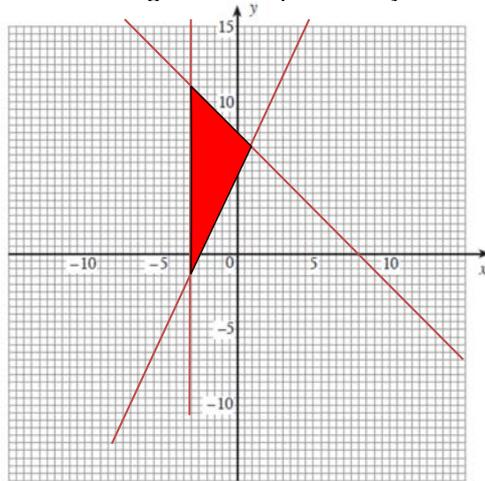
$x + y \leq 8$ $y = 8 - x$

X	0	5	10
y	8	3	-2

$y \geq 2x + 5$

X	-5	0	5
y	-5	5	15

$x \geq -3$



Top Tips!

Remember **y=number** is a **horizontal line** going through that number on the y-axis and **x = number** is a **vertical line** going through that number on the x-axis!

Equations of the form 'y = mx + c' are easier to draw so rearrange the equation if you need to!

Negative gradient ↙

Positive gradient ↗

Examination Question:

2014 Summer Link Applications U2 Higher Q8

A restaurant needs some new pieces of crockery. The crockery the restaurant needs are dishes and plates.



8(a) Line $d+p = 25$ drawn correctly	B1	FT their inequalities for least 1 line is correct
Line $3d+2p = 60$ drawn correctly	B1	
The correct region indicated	B1	
(b) Any correct point from the correct region, using whole numbers only	B1	FT from 2 lines with at correctly and similar reg
	4	Do not accept p(plates) =

The dishes and plates are available to buy in packs. There are 3 dishes or 2 plates in each pack. The restaurant cannot afford to buy more than 25 packs altogether. The restaurant wants to buy at least 60 new pieces of crockery. The information given can be represented by the inequalities,

$$d + p \leq 25$$

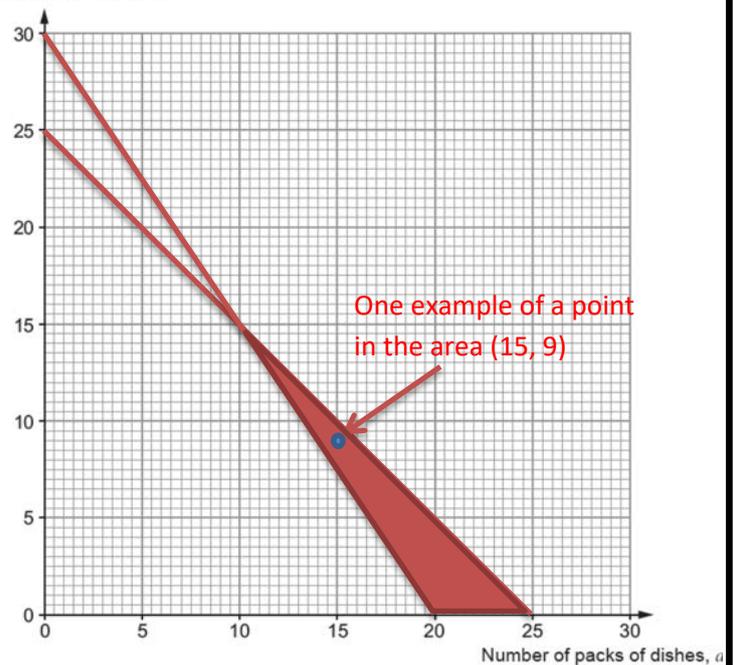
$$3d + 2p \geq 60$$

where,

- d represents the number of packs of new dishes bought, and
- p represents the number of packs of new plates bought.

Use the graph paper opposite to find the region that is satisfied by the inequalities. (3)

Number of packs of plates, p



The restaurant decides to order some dishes and some plates. Complete the order form below by selecting a suitable number of packs of dishes and packs of plates for the restaurant to buy. (1)

Crockery	Number of packs to buy
Dishes	
Plates	

Assessment for Learning

Video / QR code