Mark schemes

Q1.

Correct equation of any line or associated inequality

Ignore incorrect inequality signs

M1

Correct equations of all four lines or associated inequalities

Ignore incorrect inequality signs

M1

$x \geq 3$ and $y > 2$ and

$x > y$ and $x + y \leq 8$

A1

Use of included inequality for at least one of the solid lines

Strand (i) correct use of notation

and

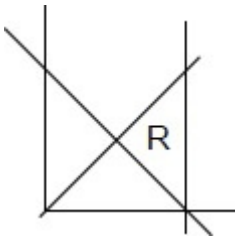
Use of strict inequality for at least one of the dashed lines

Q1ft

[4]

Q2.

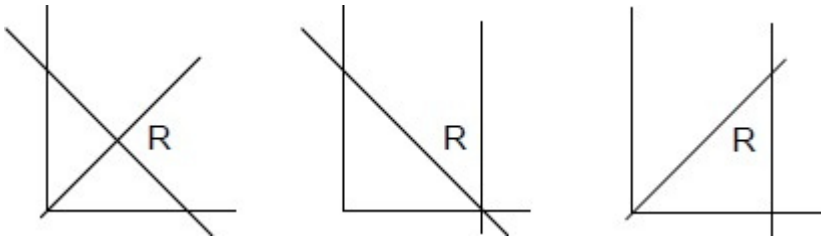
All lines correct, drawn dashed / solid R marked



3 marks

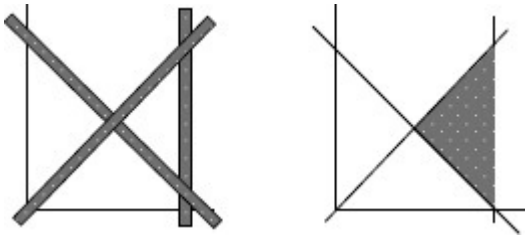
R marked correct relative to two correct, drawn dashed / solid lines

3rd line incorrect or missing



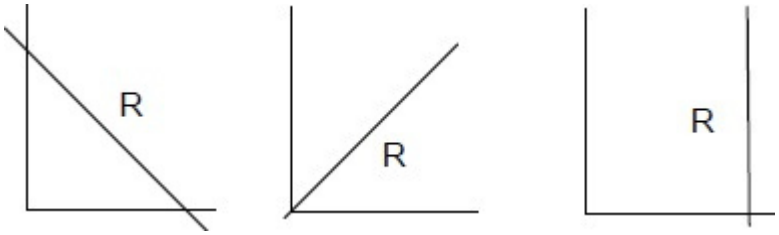
2 marks

All lines correct, drawn dashed / solid



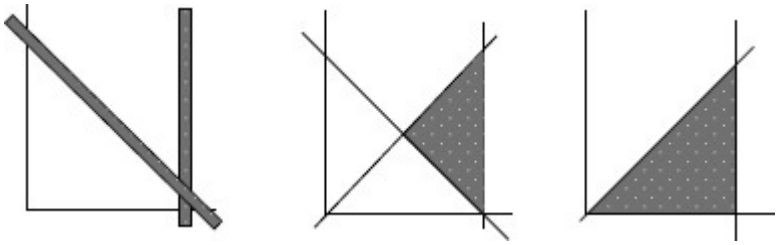
2 marks

R marked correct relative to one correct, dashed / solid line other lines incorrect or missing



1 mark

Two lines correct drawn dashed / solid

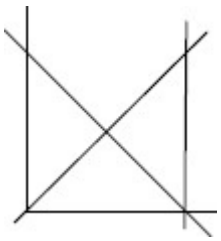


1 mark

All lines correct, drawn dashed / solid

No shading

R not marked



1 mark

[10]

Q3.

$x + y = 7$

oe allow = or any inequality sign

B1

$x \geq 2$ or $y > 1$

oe

B1

$x \geq 2$ and $y > 1$ and $x + y < 7$

oe

Strand (i) correct use of notation

SC2 $x \leq 2$ *and* $y < 1$ *and* $x + y > 7$

or $x > 2$ *and* $y \geq 1$ *and* $x + y \leq 7$

Q1

[3]

Q4.

Line for $x = 3$

B1

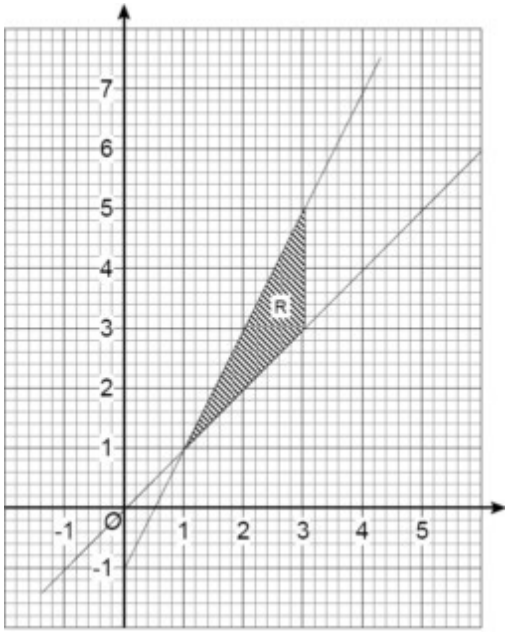
Line for $y = x$

B1

Line for $y = 2x - 1$

B1

R in the correct region



ft if two correct lines and only three drawn

B1 ft

[4]

Q5.

B or $x + y \geq 3$
and
D or $2y \geq x + 4$

B1 for one correct and at most one incorrect

B2

[2]

Q6.

(a) $x + \quad y < 7$

B1

(b) $2y \geq \quad x + 4$

B1

[2]

Q7.

–3 –2 –1 0 1 2

B1 for 5 correct and 0 incorrect
or 6 correct and 1 incorrect

B2

Additional Guidance

Do not accept coordinates

[2]

Q8.

$-2.5 < x < 1$

B1

[1]

Q9.

Line $x = 3$ should be dashed or not included

oe e.g. vertical line should be dotted

B1

R is in the wrong place

oe e.g. region is not correct
May be shown on diagram

B1

Additional Guidance

x is not equal to 3

B1

R does not include $x = 3$

B1

Straight line should be less than 3

B1

$x = 3$ is not in the region

B1

Line at $x = 3$ is closed not open

B1

Lines are not drawn correctly (not enough)

B0

Should have shaded above the dotted line $y = 3 - x$

B1

R should be where (2, 2) is

B1

R should be shaded

B0

[2]