Solutionbank C1
Edexcel Modular Mathematics for AS and A-Level

Equations and inequalities
Exercise A, Question 6

Question:

Solve these simultaneous equations by elimination:

$3x + 8y = 33$
$6x = 3 + 5y$

Solutionbank C1
Edexcel Modular Mathematics for AS and A-Level

Equations and inequalities
Exercise B, Question 2

Question:

Solve these simultaneous equations by substitution:

$4x - 3y = 40$
$2x + y = 5$

Solutionbank C1
Edexcel Modular Mathematics for AS and A-Level

Equations and inequalities
Exercise B, Question 4

Question:

Solve these simultaneous equations by substitution:

$2y = 2x - 3$
$3y = x - 1$

Solutionbank C1
Edexcel Modular Mathematics for AS and A-Level

Equations and inequalities
Exercise C, Question 4

Question:

Solve the simultaneous equations:

(a) $3x + 2y = 7$
$x^2 + y = 8$

(b) $2x + 2y = 7$
$x^2 - 4y^2 = 8$

Solutionbank C1
Edexcel Modular Mathematics for AS and A-Level

Equations and inequalities
Exercise D, Question 3

Question:

Find the set of values of x for which:

(a) $3(x-2) > x-4$ and $4x+12 > 2x+17$

(b) $2x-5 < x-1$ and $7(x+1) > 23-x$

(c) $2x-3 > 2$ and $3(x+2) < 12+x$

(d) $15-x < 2(11-x)$ and $5(3x-1) > 12x+19$

(e) $3x+8 \leq 20$ and $2(3x-7) \geq x+6$

Solutionbank C1
Edexcel Modular Mathematics for AS and A-Level

Equations and inequalities
Exercise E, Question 2

Question:

Find the set of values of x for which:

(a) $x^2 < 10 - 3x$

(b) $11 < x^2 + 10$

(c) $x (3 - 2x) > 1$

(d) $x (x + 11) < 3 (1 - x^2)$

Solutionbank C1
Edexcel Modular Mathematics for AS and A-Level

Equations and inequalities
Exercise F, Question 13

Question:

The specification for a rectangular car park states that the length x m is to be 5 m more than the breadth. The perimeter of the car park is to be greater than 32 m.

(a) Form a linear inequality in x.
The area of the car park is to be less than 104m^2.

(b) Form a quadratic inequality in x.

(c) By solving your inequalities, determine the set of possible values of x. **[E]**