

a Find the smallest integer n such that $5n + 2 > 2n + 13$ 4 the smallest integer above a fraction	b Does the point $(1, 4)$ satisfy both $y \geq x + 2$ and $x + y < 5$? <i>no</i> $1 + 4$ is not less than 5 a point in two inequalities	c Solve $x^2 < 3x + 10$ $-2 < x < 5$ rearrange to zero first	d Solve $x^2 - 6x \geq 0$ $x \leq 0$ or $x \geq 6$ a factor of x : two parts
e Solve $(x - 3)^2 > 4$ $x < 1$ or $x > 5$ a squared bracket: two parts	f Solve $6 - x - x^2 > 0$ $-3 < x < 2$ a negative x^2 term	g Solve $x^2 - 4x - 1 \leq 0$. Give exact values. $2 - \sqrt{5} \leq x \leq 2 + \sqrt{5}$ exact ends: surds	h How many integer points (x, y) have $x > 0, y > 0$ and $x + y < 5$? 6 integer points in a region
i Find the values of x for which both $x^2 - 7x + 10 < 0$ and $3x - 1 > 8$ $3 < x < 5$ two conditions: where both hold	j $x^2 + kx + 4 = 0$ has two solutions. Find the possible values of k . $k < -4$ or $k > 4$ two solutions: an inequality in k	k The solution of $x^2 + bx + c < 0$ is $-1 < x < 4$. Find b and c . $b = -3, c = -4$ working back from the solution	l Solve $1 < x^2 < 9$ $-3 < x < -1$ or $1 < x < 3$ a double inequality in x^2

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