Solving simultaneous equations graphically

Answers

GCSE Maths topic practice

This topic online

Q	Answer	Marks
1	x = 3, y = 4	1
2	x = 2, y = 3	1
3	**a)** Straight line through (0, 6), (3, 3) and (6, 0) **b)** x = 2, y = 4	3
4	**a)** -2, 4, 10 **b)** Straight line through (0, -2), (1, 1), (2, 4), (3, 7) and (4, 10) **c)** x = 3, y = 7	4
5	**a)** 2x + 3y = 12 through (0, 4), (3, 2) and (6, 0); y = x - 1 through (0, -1), (3, 2) and (6, 5) **b)** x = 3, y = 2	4
6	**a)** x = 1.3, y = 3.7 (accept x from 1.2 to 1.4 and y from 3.6 to 3.8) **b)** The lines do not cross on a grid point, so the values can only be read approximately	3
7	4x - 2y = 2 rearranges to y = 2x - 1. Both lines have gradient 2, so they are parallel and never cross, so there is no solution	2
8	**a)** 6 miles **b)** £15 **c)** Firm B (accept B)	4
9	**a)** No. (2, 5) is on 3x + y = 11, but 2 × 2 - 4 = 0, not 5, so it is not on y = 2x - 4 **b)** (3, 2) (accept x = 3, y = 2)	3
10	**a)** x + y = 9 and x - y = 3 (in either order) **b)** x + y = 9 through (0, 9) and (9, 0); x - y = 3 through (3, 0) and (9, 6) **c)** x = 6, y = 3 (accept 6 and 3)	4

Full worked solutions, written out by hand, are on the solutions sheet for this topic.

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