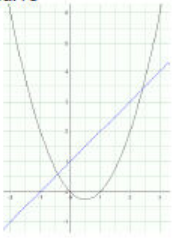
SOLVING SIMULTANEOUS EQUATIONS GRAPHICALLY

Pearson Edexcel - Monday 8 June 2020 - Paper 3 (Calculator) Foundation Tier

1.

28 (a)	−2, 4	B1	cao	
(b)	0.55 to 0.65, 3.35 to 3.45	M1	for correct method, eg marking intercepts with *x*-axis or one correct answer or both solutions given as a coordinate eg (0.6, 3.4) or (0.6, 0) (3.4, 0)	If answers are stated as coordinates, award M1 for both coordinates and M0 for one coordinate.
		A1	for answers in the ranges 0.55 to 0.65 and 3.35 to 3.45	With no extras

2.

22	a		2 0	2	B1 for each	
	b		Correct curve 	3	B2FT for all points correctly plotted or B1FT for 4 or 5 points correctly plotted	FT their values from the table in (a) for points but accept only the correct curve. Accuracy ± half small square Correct curve must have at least one square of daylight below *x*-axis at minimum point and not intended straight
	c		-[0].4 and 2.4	2	Correct answer or FT *their* graph for both B1 for each	-0.45 to -0.35 and 2.35 to 2.45 FT from *their* line with half square accuracy (may be straight)

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3.

13	**(a)**	**(i)**	*y* = 2 sketched correctly with 2 indicated on *y*-axis as y-intercept	**2**	**M1** for a horizontal line	Condone good freehand
13	**(a)**	**(ii)**	*y* = *x* + 1 sketched correctly with 1 indicated as *y*-intercept	**2**	**M1** for any straight line with positive gradient or for *y*- intercept at 1	Condone good freehand
13	**(a)**	**(iii)**	*y*-value where they cross has to be 2 **oe**	**1**		Isw extra statements. Accept eg (2, 3) is not on y = 2 as the y coordinate is 3 they cross at (1, 2) they cross when x = 1 See AG
13	**(b)**		Should go through (0, 0) **oe** Should be a curve **oe** No numbers on axis/axes **oe** It is symmetrical **oe**	**2**	**B1** for each to a max of 2	If more than two comments, mark the best two See AG

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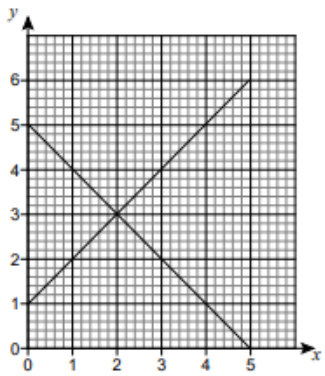
4.

24			$y = 6x + 2$ oe final answer	4	B3 for $6x + 2$ final answer or $y = 6x + 2$ oe but spoiled to final answer OR **B2** for $y = 6x + k$ oe $0 < k < 7$ or for $y = mx + 2$, $m > 0$ and $m \neq 6$ or **B1** for gradient or $m = 6$ stated or for $y = 6x$ or for $[y =] 6x + k$ $k \neq 0$ or 7 oe or for $mx + 2$, $m > 0$ and $m \neq 6$ **B0** for $y = 6x + 7$ (as given)	Accept $y - 26 = 6(x - 4)$ as equivalent Do not allow other letters for x Alternative methods **M1** for $6 \times 4 + 7$ soi 31 **M1** for *their* 31 – 26 soi 5 **M1** for 7 - *their* 5 OR **M1** for $[\pm]6 \times 4$ soi 24 or –24 **M1** for 26 – *their* 24 soi 2 **M1** for $6x$ + *their* 2

AQA Sample Paper 1– Morning (Non-Calculator) Foundation Tier

5.

17(a)	Straight line through (0, 1), (1, 2), (2, 3), (3, 4), (4, 5) and (5, 6)  	B2	B1 Two correct points plotted
17(b)	$x = 2$ and $y = 3$	B1ft	ft their linear graph from (a)