SOLVING ONE STEP EQUATIONS

Pearson Edexcel - Thursday 4 June 2020 - Paper 2 (Calculator) Foundation Tier

1.

10	(a)	12	B1	cao	
	(b)	4	B1	cao	

Pearson Edexcel - Monday 12 November 2018- Paper 3 (Calculator) Foundation Tier

2.

1	(i)	43.7	B1	cao	
	(ii)	$\frac{5}{7}$	B1	$\frac{5}{7}$ oe	Accept any other equivalent fraction to $\frac{5}{7}$

Pearson Edexcel - Thursday 2 November 2017 - Paper 1 (Non-Calculator) Foundation Tier

3.

3		42	B1	cao

Pearson Edexcel – Specimen 1 - Paper 3 (Calculator) Foundation Tier

4.

7	(a)		5	B1 cao	
	(b)		12	B1 cao	
	(c)		d^5	B1	

OCR Monday 11 November 2019 – Afternoon (Calculator) Foundation Tier

5.

11	(a)	$3x - 6$ final answer	1		
	(b)	$2a^2 + 2ab$ final answer	2	B1 for $2a^2$ or $2ab$ in final answer	Do not accept $2aa$ for 2 marks but condone for 1 mark

OCR Thursday 6 June 2019 – Morning (Non-Calculator) Foundation Tier

6.

6	(a)	(i)	32	1		
		(ii)	9	2	M1 for either step reversed **soi**	eg +3, ÷ 5, 45
	(b)		$y = 5x - 3$ final answer	2	M1 for $5x - 3$ **seen** or y = 5x + 3 in final answer or $y = kx - 3$ ($k \neq 0$) in final answer or $y = 5x - c$ where c > 0 If 0 scored **SC1** for $x = \dfrac{y+3}{5}$ final answer	Accept 5x - 3 = y Allow $x \times 5 - 3$ for 1 or 2 marks Accept 5x + 3 = y or $kx - 3 = y$ or $5x - c = y$

OCR Tuesday 11 June 2019 – Morning (Calculator) Foundation Tier

7.

8			7	2	M1 for 3 × 4 − 5	May be in steps Allow 12 − 5 for M1

8.

12			7.5 or $7\frac{1}{2}$ or $\frac{15}{2}$ final answer	2	M1 for first correct step $4x = 35 - 5$ or better or $x + \dfrac{5}{4} = \dfrac{35}{4}$ or better	Do not accept embedded answers Accept a fully correct flowchart or working for **M1** eg $x \rightarrow \times 4 \rightarrow + 5 \rightarrow 35$ $x \leftarrow \div 4 \leftarrow - 5 \leftarrow 35$ or $(35 - 5) \div 4$ may be in stages

OCR Tuesday 6 November 2018 – Morning (Calculator) Foundation Tier

9.

6	(a)		10 final answer	1		
	(b)		4 final answer	1		

OCR Monday 24 May 2018 – Morning (Calculator) Foundation Tier

10.

7	(a)	(i)	14	1		
		(ii)	18	1		
		(iii)	6.5 final answer	2	**M1** for $8x = 46 + 6$ or better or $x = \frac{b}{a}$ from *their ax= b* $a \neq 1$	Accept $6\frac{1}{2}$ or $\frac{13}{2}$ must be an equation Accept a fully correct flow chart for **M1**
	(b)		-6 and -5 final answer	3	**B2** for $(x + 6)(x + 5)$ Or **M1** for $(x \pm a)(x \pm b)$ where $(a + b) =11$ or $(ab) = 30$ or pairs of factors giving two correct terms may be implied in a table And **B1** for correct solutions **FT** *their* quadratic factors	

OCR Thursday 7 June 2018 – Morning (Non Calculator) Foundation Tier

11.

4	a	i	$4x - 3y$ final answer	2	**B1** for $4x$ or $-3y$ in final answer	$4x+ -3y$ scores B1 only
		ii	w^6 final answer	1		
		iii	$15c^3d$ final answer	1		Accept $15dc^3$ Do not accept eg $15 \times c^3 \times d$
	b	i	13	1		
		ii	3	1		

AQA Tuesday 21 May 2019 – Morning (Non-Calculator) Foundation Tier

12.

2	$x = 2$	B1	

AQA Thursday 11 June 2019 – Morning (Calculator) Foundation Tier

13.

2	$x = 13$	B1	

AQA Tuesday 6 November 2018 – Morning (Non-Calculator) Foundation Tier

14.

20	**Alternative method 1**		
	$3x = 19 + 8$ or $3x = 27$ or $(19 + 8) \div 3$ or $\dfrac{27}{3}$	M1	accept in 'flow chart' eg $(x \rightarrow) \times 3 \rightarrow -8 \rightarrow 19$ and $\leftarrow \div 3 \leftarrow +8 \leftarrow 19$ enough for M1
	9	A1	
	Alternative method 2		
	$x - \dfrac{8}{3} = \dfrac{19}{3}$	M1	
	9	A1	
	Additional Guidance		
	$3 \times 9 - 8 \ (= 19)$		M1A0

AQA Monday 12 November 2018 – Morning (Calculator) Foundation Tier

15.

5(a)	96	B1	
	Additional Guidance		

5(b)	72	B1	
	Additional Guidance		

AQA Tuesday 12 June 2018 – Morning (Calculator) Foundation Tier

16.

2	$x = \dfrac{2}{3}$		B1	
	Additional Guidance			

AQA Thursday 2 November 2017 – Morning (Non-Calculator) Foundation Tier

17.

5a	17	B1	
	Additional Guidance		

5b	9	B1	
	Additional Guidance		

5c	−2	B1	
	Additional Guidance		

AQA Wednesday 8 November 2017 – Morning (Calculator) Foundation Tier

18.

12a	10	B1	

12b	35	B1	

12c	−5	B1	

AQA Wednesday 8 November 2017 – Morning (Calculator) Foundation Tier

19.

17	$x - 3 = \dfrac{x}{2}$	B1	

AQA Thursday 25 May 2017– Morning (Non-Calculator) Foundation Tier

20.

	$x = 3$	B1	
4	**Additional Guidance**		

AQA Thursday 8 June 2017– Morning (Calculator) Foundation Tier

21.

	$4x = 14 + 3$ or $4x = 17$ or $(14 + 3) \div 4$ or $17 \div 4$ or $x - \dfrac{3}{4} = \dfrac{14}{4}$	M1	
	4.25 or $\dfrac{17}{4}$ or $4\dfrac{1}{4}$	A1	
11	**Additional Guidance**		
	Embedded answer of 4.25 with 4.25 not selected on answer line eg 4 × 4.25 – 3 = 14 with no answer given or answer of 14 or 17		M1A0
	14 + 3 and answer 4.25		M1A1
	14 + 3 only		M0A0
	Trial and improvement with answer 4.25		M1A1
	Trial and improvement with no answer or answer other than 4.25		M0A0
	4.25 or $\dfrac{17}{4}$ or $4\dfrac{1}{4}$ seen and then answer 4 given		M1A1
	Answer of ×4.25		M1A0
	17 ÷ 4 (and no further)		M1A0

AQA Sample Paper 3– Morning (Calculator) Foundation Tier

22.

	$4x + 20 = 15$ or $x + 5 = 15 \div 4$	M1	oe
14	$4x = 15 -$ their 20 or $x = 15 \div 4 - 5$	M1	oe
	-1.25	A1ft	oe ft M1M0 or M0M1 with only one error