

## CALCULATION PROBLEMS

### Pearson Edexcel - Tuesday 19 May 2020 - Paper 1 (Non-Calculator) Foundation Tier

1.

15	7	P1	for $750 \times 9 (=6750)$ <b>or</b> $1 + 9 (=10)$ <b>or</b> $750 \div 1000 (= 0.75)$	This can be implied by (1 litre of drink =) 100 (ml) of squash and 900 (ml) of water)
		P1	(dep) for “6750” + 750 (=7500) <b>or</b> for “10” $\times$ 750 (=7500) <b>or</b> “0.75” $\times$ “1 + 9” (= 7.5)	
		A1	cao	
		P1	<b>Alternative</b> for $100 + 900 (= 1000)$	
		P1	(dep) for $750 \div 100 (= 7.5)$	
		A1	cao	

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

2.

8	78	P1	for process to find the number of boxes, eg $200 \div 25 (=8)$ or to find the cost of each tile, eg $9.75 \div 25 (=0.39)$	Could work in £ or in pence for P marks
		P1	for complete process, eg “8” $\times$ 9.75, “0.39” $\times$ 200	
		A1	cao	

### Pearson Edexcel - Thursday 6 June 2019 - Paper 2 (Calculator) Foundation Tier

3.

6	Yes and statement	P1	for a first step towards solution, eg. $2 \times 2.75 (= 5.5)$ or $2.75 + 2.9 (= 5.65)$ <b>OR</b> $10 - 1.5 (= 8.5)$ or $10 - 2.9 (= 7.1)$ or $10 - 2.75 (= 7.25)$	
		P1	for a complete process to find figures to compare eg. $2 \times 2.75 + 2.9 + 1.5 (= 9.90)$ or $10 - (2 \times 2.75 + 2.9) (=1.60)$ <b>OR</b> $2 \times 2.75 + 2.9 (=8.40)$ <b>and</b> $10 - 1.5 (= 8.5)$	
		C1	for correct conclusion with accurate figure(s) eg. Yes and (£)1.6(0) <b>or</b> Yes and (£)9.9(0) <b>or</b> Yes and (£)8.4(0) <b>and</b> (£)8.5(0)	



8.

13	3	P1	for a start to the process eg $240 - (2 \times 45) (= 150)$ oe <b>or</b> $(2 \times 45) + 40 (= 130)$ oe	Considering just one piece of 45 cm is not a misread but $(240 - 45) \div 40 (= 4.875)$ oe should be awarded P1 only
		P1	for complete process eg " $150" \div 40 (= 3.75)$ – can be implied by $40 + 40 + 40 = 120$ <b>or</b> " $130" + 40 + 40 (= 210)$	
		A1	cao	

**Pearson Edexcel - Thursday 7 June 2018 - Paper 2 (Calculator) Foundation Tier**

9.

8	19.85	P1	for a start to the process eg $30 \div 6 (=5)$ <b>or</b> $30 \div 15 (=2)$ <b>or</b> $30 \div 10 (=3)$ <b>OR</b> $30 \times 37 (=1110)$ <b>OR</b> $82 \div 6 (=13.6 \text{ to } 13.7)$ <b>or</b> $45 \div 15 (=3)$ <b>or</b> $1.25 \div 10 (=0.125)$	Work may be in pence or in pounds  Intention to add not necessary eg 410, 3.75 is sufficient, or working leading to these figures Any two correct methods will imply P1P1P1  Correct working for 3 of pens, pencils, rulers and pencil cases with an intention to add, may be in a mixture of money units
		P1	for process to find cost of 30 pens <b>or</b> 30 pencils <b>or</b> 30 rulers eg " $5" \times 82 (= 410)$ <b>or</b> " $2" \times 45 (= 90)$ <b>or</b> " $3" \times 1.25 (= 3.75)$ <b>OR</b> " $13.6."$ $\times 30 (=409.8 \text{ to } 410)$ <b>or</b> " $3" \times 30 (=90)$ <b>or</b> " $0.125" \times 30 (=3.75)$	
		P1	for a process to find cost of 2 of 30 pens <b>or</b> 30 pencils <b>or</b> 30 rulers eg any 2 of " $5" \times 82 (= 410)$ , " $2" \times 45 (= 90)$ , " $3" \times 1.25 (= 3.75)$	
		P1	for adding at least 3 different costs (units may not be consistent) eg " $410" + "90" + "3.75"$ <b>or</b> " $410" + "90" + "11.10"$	
		A1	cao	

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

10.

19	180, 210, 375, 3	M1	for $\frac{24}{16}$ <b>or</b> 1.5 <b>or</b> $\frac{16}{24}$ oe <b>or</b> 0.5 of any figure in the recipe calculated <b>or</b> amount of any ingredient for 1 flapjack or 3 (tablespoons)
		M1	for method to scale at least one ingredient in grams eg $120 \times 1.5$ <b>or</b> $140 \times 1.5$ <b>or</b> $250 \times 1.5$
		A1	for all quantities correct

**Pearson Edexcel - Monday 6 November 2017 - Paper 2 (Calculator) Foundation Tier**

11.

4 (a)	1785-1245 =540	6	P1	for process to find the total weight of one type of fruit eg $4 \times 125 (=500)$ or $2 \times 170 (=340)$ or $3 \times 135 (=405)$ or 1245
	540 ÷ 90		P1	complete process to find the total weight of oranges eg "1785" – ("500" + "340" + "405") or sight of digits 54 or answer given as 0.6 or 60
	(b)(i)		No	A1
(b)(ii)		(supported)	P1	Starts process, eg $1000 \div 75$ (digits 13(3..) seen) or $15 \times 75 (= 1125)$ or 1.125 or showing $1000 \div 15 (=66(6..))$ or counts to 975 or 1050
(b)(ii)		Comment	C1	"No" with correct working eg as evidenced by work from P1 mark.
			C1	for valid comment, eg may get enough tomatoes if tomatoes weigh less than assumed (75g), not if weight is more than 75g.

**Pearson Edexcel - Wednesday 8 November 2017 - Paper 3 (Calculator) Foundation Tier**

12.

5		13	M1	for the start of a method, eg. $2 \times 1000 (= 2000)$ or $150 \div 1000 (= 0.15)$ or $1000 \div 150 (= 6.66\dots)$
			M1	for a fully correct method, eg. $2000 \div 150$ or $2 \div 0.150$ or $13.3(\dots)$
			A1	cao

**Pearson Edexcel – Specimen 2 - Paper 1 (Non-Calculator) Foundation Tier**

13.

6		5.25 litres	P1	for start to process eg. $5 \div 2 (=2.5)$
			P1	for complete process eg. $5000 + 2.5 \times 100$
			A1	or 5250 ml

14.

13	£5	£5	P1	for $\frac{25}{100} \times 60$
			P1	for process to find difference between totals $20 - "15"$
			A1	cao

**Pearson Edexcel – Specimen 2 - Paper 2 (Calculator) Foundation Tier**

15.

7	$2 \times \pounds 1.10 (= \pounds 2.20)$ $3 \times \pounds 0.95 (= \pounds 2.85)$ $5 \times \pounds 2.15 (= \pounds 10.75)$ $\pounds 2.20 + \pounds 2.85 + \pounds 10.75$ $\pounds 15.80 \div 5$	3.16	P1 for process of working out total cost of coffees or teas or sandwiches in pence or pounds P1 for process of finding total cost using consistent units P1 for process of dividing by 5 A1 cao
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16.

12		0.8	P1 for process to find amount of soup put in bowls, eg $24 \times 0.3$ or amount of soup when 8 pints are shared between 24 bowls, eg $24 \div 8$ P1 for complete process to find amount of soup left over A1
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17.

15 (a)		10	P1 for process to find number of people that Ellie can make mousse for using the sugar available P1 for process to find number of people that Ellie can make mousse for using the chocolate available A1 for correct answer with supportive working
(b)		correct explanation	C1 for "can only make mousse for 6 people" oe

**Pearson Edexcel – Specimen 2 - Paper 3 (Calculator) Foundation Tier**

18.

6 (a)		3	P1 start of process eg $8 \times 2 \times 28 (= 448)$ P1 eg '448' $\div 200 (= 2.24)$ or build up method A1 cao
(b)		No change with reason	P1 process to evaluate effect of 2.5g C1 explanation that number of jars is unchanged

19.

12		2.70	P1 start of process $1.95 \times 3 (= 5.85)$ P1 complete process eg $(6.93 - '5.85') \div 0.4$ A1 cao
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20.

14	(a)		9	M1 for $-12$ and $\div 7.80$
	(b)		$T = 7.8y + 12$	A1 cao C1 for $7.8y + 12$ or $T =$ linear expression in $y$ C1 $T = 7.8y + 12$ oe

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

21.

19	(a)		2.79	P1 method to find amount of milk needed, eg $7 \times \frac{3}{4}$ (=5.25) P1 uses appropriate integer from their working to calculate a cost eg 5.25 as 6 pints and $3 \times 2$ pints
	(b)		pay more	A1 cao C1 deduces he <b>may</b> have to pay more [if he uses more than 0.857 pints a day]

22.

24		explanation	M1 works with volume eg 240000 M1 uses conversion 1 litre = 1000 cm <sup>3</sup> M1 uses 8000 eg vol $\div$ 8000 (=30) M1 uses "30" eg "30" $\times$ 2.50 C1 for explanation and 75 stated	begins working back eg $70 \div 2.50$ (=28) uses conversion 1 litre = 1000 cm <sup>3</sup> uses 8000 eg "28" $\times$ 8000 (=224000) works with vol. eg 224000 for explanation with 240000 and 224000
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**Pearson Edexcel – Specimen 1 - Paper 2 (Calculator) Foundation Tier**

23.

5	(a)	$27 \times 18 = 486$	5.14	M1 for 1000 – "27 $\times$ 18" A1 cao
	(b)		"less change"	C1 for "less change" oe

24.

6		$458 - 72 = 386$ $386 \div 2 = 193$	265	P1 for start to the process, eg $458 - 72$ (= 386) or $458 \div 2$ (= 229) and $72 \div 2$ (= 36) A1
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25.

11		for No with supporting evidence	P1 for correct process to find price in week 1, eg $65 \times 0.8 (= 52)$ P1 for process to find the price in week 2, eg "52" - 10 (= 42) C1 for No with correct supporting evidence
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26.

18		butter = 1080 flour = 1575 sugar = 450 mincemeat = 1260	M1 for correct use of a correct scale factor, $72 \div 16 (= 4.5)$ on at least one ingredient M1 for complete method applied to all ingredients A1 cao
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27.

26		No with supporting evidence	P1 for the start of a correct process, eg two of $x$ , $2x$ and $2x+7$ or a fully correct trial, eg. $5 + 10 + 17 = 32$ P1 for setting up an equation in $x$ , eg $x + 2x + 2x + 7 = 57$ or a correct trial totalling 57, eg $10 + 20 + 27 = 57$ C1 for a correct deduction from their correct answers, eg Chris has 20 so it is impossible for all to have 20 since 60 marbles would be needed.
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**Pearson Edexcel – Specimen 1 - Paper 3 (Calculator) Foundation Tier**

28.

15		2	P1 for correct process to find fibre for 400g OR to find weight of 1 slice P1 for a complete process to find the fibre per slice A1 cao
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29.

19	$3.69 \times 2 = 7.38$	19	P1 for $50 \div 7.38$ or $50 \div 3.69$ (or repeated addition) P1 for $6 \times 7.38 + 3.69$ or " $6$ " $\times$ 3 + 1 A1 19 boxes
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**OCR – Tuesday 03 November 2020- Morning - Paper 1 (Calculator) Foundation Tier**

30.

8		39	2	M1 for $460 \div 12$ so i by 38.3[3..] oe or $38 \times 12 = 456$ and $39 \times 12 = 468$ in working.	Allow M1 for repeated addition or subtraction if method shown.  If only numbers listed addition must reach 468. subtraction must reach 4  Answer of 38 no working scores 0
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OCR November 09 November 2020- Morning (Calculator) Foundation Tier

31.

3			Incorrect oe and $[2 - 3 \times 2 =] -4$ and $[3 - 5 =] -2$	2	<b>B1</b> for $[2 - 3 \times 2 =] -4$ or $3 - 5 = -2$ or $-2$ associated with $3 - 5$	Both answers are $-2$ scores B1 Incorrect because the answers are different scores 0
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32.

13	a		Straight line from (0, 0) with positive gradient	2	<b>B1</b> for straight line with positive gradient or a series of crosses in a straight line that would pass through (0, 0)	Intercept within 1 mm of (0, 0) ("centre of line" inside circle of overlay) For 1 or 2 marks, intended straight Ignore scale on axes At least three crosses
	b	i	36	3	<b>M2</b> for $432 \div 120 \times 10$ oe or <b>M1</b> for $432 \div 120$ soi 3.6 or $120 \div 10$ soi 12	e.g. $432 \div 12$  $120+120+120+60 = 420$ oe
		ii	1640	3	<b>B1</b> for $[2 \text{ kg} =] 2000$ seen  <b>M1</b> for $100 \times \frac{\text{their}36}{10}$ or $10 \times \text{their } 36$	<b>B1</b> may be awarded for the conversion even if not used in method May be $10 \times \text{their } 36$ correctly evaluated or 360 seen

OCR Tuesday 5 November 2019 – Morning (Calculator) Foundation Tier

33.

8	a		9	2	<b>M1</b> for $379 \div 45$ soi by 8.4...	Allow M1 for repeated addition or subtraction if method shown. If only numbers listed addition must reach 360 45, 90, 135, 180, 225, 270, 315, 360. subtraction must reach 19 334, 289, 244, 199, 154, 109, 64, 19
	b	i	Shows $\frac{35}{50} [= 0.7]$ or  $\frac{15}{50} = 0.3, 1 - 0.3 [= 0.7]$	2	<b>M1</b> for 35  Or <b>M1</b> for $\frac{10}{50} + \frac{5}{50}$ oe or $\frac{15}{50}$	Allow $35 \div 50$  Allow $15 \div 50$
		ii	States or gives a reason why past games may not be representative/relevant to this game	1		eg Past opponents may be a different standard eg Past games may have been played at home eg Best players may now be injured

34.

11			97.75	6	<b>M1</b> for $4 \times 8.5$ implied by 34  <b>B1</b> for 5 [hours]  <b>M2</b> for $8.5 \times 1.5 \times \text{their } 5$ implied by 63.75 or <b>M1</b> for $8.5 \times 1.5$ implied by 12.75 or $\text{their } 5 \times 1.5$ implied by 7.5 or $\text{their } 5 \times 8.5$ implied by 42.5 and <b>M1</b> for $\text{their Friday total} + \text{their Saturday total}$  Alternative method  <b>M1</b> for $9.5 \times 8.5$ implied by 76.5[0] <b>B1</b> for 5 [hours] <b>M1</b> for $0.5 \times 8.5$ implied by 4.25 <b>M1</b> for $\text{their } 5 \times \text{their } (0.5 \times 8.5)$ implied by 21.25 <b>M1</b> for $\text{their } (9 \times 8.5) + \text{their } ((5) \times 0.5 \times 8.5)$	63.75 may imply B1 M2
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OCR Tuesday 5 November 2019 – Morning (Calculator) Foundation Tier

35.

20		385 with correct working	6	<p>M2 for [mass of one panel =]  <math>2.4 \times 1.2 \times 0.018 \times 750</math>                      or <math>240 \times 120 \times 1.8 \times 0.750</math>                      or</p> <p>M1 for figs 24 × figs 12 × figs 18 × figs 750                      or <math>2.4 \times 1.2 \times 0.018</math>                      or <math>240 \times 120 \times 1.8</math></p> <p>AND</p> <p>B1 for 15000 [kg] or 15000000g seen                      or <i>their</i> mass correctly converted to tonnes</p> <p>M1 for <math>\frac{\text{figs } 15}{\text{their mass}}</math></p> <p>A1 for 385[...] to 387</p> <p>If 0 or B1 scored instead award                      SC2 for answer 385 with no or insufficient working                      or                      SC1 for answer 385[...] to 387 with no working</p>	<p>“Correct working” requires evidence of at least M2 AND B1 i.e. correct and consistent units used</p> <p>soi by 38.8 to 38.9 [kg]                      soi by 38800 to 38900 [g]</p> <p>soi by 0.0518 to 0.0519 [m<sup>3</sup>]                      soi by 51800 to 51900 [cm<sup>3</sup>]                      Assume <i>their</i> mass unit from M2, but do not assume from M1 only</p> <p>Accept any figure but not 2.4, 1.2, 1.8 and 750 for <i>their</i> mass                      For M1 accept one or more trial(s) of <i>their</i> mass × an integer in attempt to = <i>their</i> figs 15</p>
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OCR Monday 11 November 2019 – Afternoon (Calculator) Foundation Tier

36.

17		25, 50, 75, 150	5	<p>B4 for 25, 50, 75 seen                      or                      B3 for two from 25, 50, 75 seen                      or                      B2 for one from 25, 50, 75 seen                      or                      M1 for car A associated with 5</p>	<p>Mark answer line first and accept numbers on the line as answers                      Only look back into working if answer line blank</p>
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OCR Tuesday 21 May 2019 – Morning (Calculator) Foundation Tier

37.

8			411.25	6	<p>Mark the method which leads to the answer. If no final answer, mark to candidate's advantage</p> <p><b>M1</b> for <math>35 \times 9.4</math> implied by 329  <b>M1</b> for <math>42 - 35</math> implied by 7 as a time  <b>M1</b> for <math>9.4 \times \frac{5}{4}</math> oe implied by 11.75  <b>M1</b> for <i>their</i> <math>(42 - 35) \times \text{their } (9.4 \times \frac{5}{4})</math> implied by 82.25  <b>M1</b> for <i>their</i> <math>(35 \times 9.4) + \text{their } ((42 - 35) \times 9.4 \times \frac{5}{4})</math>  or <i>their</i> <math>(35 \times 9.4) + \text{their } ((42 - 35) \times 9.4 \times \frac{1}{4})</math> may be implied by adding 16.45 to <i>their</i> <math>(35 \times 9.4)</math> or answer of 345.45</p> <p>An alternative method</p> <p><b>M1</b> for <math>42 \times 9.4</math> implied by 394.8[0]  <b>M1</b> for <math>42 - 35</math> implied by 7 as a time  <b>M1</b> for <math>9.4 \times \frac{1}{4}</math> oe implied by 2.35  <b>M1</b> for <i>their</i> <math>(42 - 35) \times \text{their } (9.4 \times \frac{1}{4})</math> soi by 16.45  <b>M1</b> for <i>their</i> <math>(42 \times 9.4) + \text{their } ((42 - 35) \times 9.4 \times \frac{1}{4})</math></p>
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38.

9			<p>[£]7 as answer with 7.8[0] and 8.8[0] and either 2.8 oe, 2800 or 3 [...]</p>	4	<p>All values must be correct for 4 marks</p> <p><b>M1</b> for <math>7 \times \frac{2}{5}</math> implied by 2.8 oe or 2800 or showing he needs to buy 3 litres</p> <p>AND</p> <p><b>M2</b> 4.4 + 2.6 may be implied by 7 and <math>3 \times 2.6</math> may be implied by 7.8[0] and <math>2 \times 4.4</math> may be implied by 8.8[0] or</p> <p><b>M1</b> for <math>3 \times 2.6</math> may be implied by 7.8[0] or <math>2 \times 4.4</math> may be implied by 8.8[0]</p> <p>AND</p> <p><b>B1</b> for answer of 7</p>
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39.

21			<p>[s = ] 15 with correct working  [j = ] 22</p>	5	<p>Correct answer from trial and improvement scores 5</p> <p><b>B4</b> for 1 correct answer with correct working</p> <p>OR</p> <p><b>M1</b> for <math>5s + 4j = 163</math> oe  <b>M1</b> for <math>3s + 2j = 89</math> oe</p> <p><b>M1</b> for method to find a common coefficient, allow 1 arithmetic error</p> <p><b>M1</b> for correct method to eliminate 1 variable, allow one arithmetic error – a sign error is not an arithmetic error</p> <p>If zero scored <b>SC2</b> for correct answers with no working</p>
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OCR Thursday 6 June 2019 – Morning (Non-Calculator) Foundation Tier

40.

13	(a)		12 [eggs]	1		
	(b)		35	2	M1 for $140 \div (20/5)$ oe	
	(c)		$210 \div 60 \times 20$ soi  No he can only make 70	M2  A1	or M1 $210 \div 60$ soi  Alt method M2 $60 \div 20 \times 75$ soi A1 No he will need 225g of cocoa powder  OR  M1 $60 \div 20$ or $75 \div 20$	eg $60 \div 60 \div 60 \div 30$ [g] is $20 \div 20 \div 20 \div 10$ [cupcakes] implies M2  eg $60 \times 3 \div 45$  If nothing on the answer line mark to candidates advantage but do not mix methods

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41.

13			35.1[0]	4	M1 for $240 \div 40$ soi 6 [gallons] AND M2 for <i>their</i> $(240 \div 40) \times 1.3[0] \times 4.5$ or M1 for <i>their</i> $(240 \div 40) \times 1.3[0]$ soi 7.8[0] or <i>their</i> $(240 \div 40) \times 4.5$ soi 27 or $1.3[0] \times 4.5$ soi 5.85  If 0 scored, SC1 for any number of litres $\times 1.3$ correct	Alternative method  M1 for $40 \div 4.5$ soi 8.88... oe  M1 for $240 \div$ <i>their</i> $(40 \div 4.5)$ soi 27  M1 for <i>their</i> $(240 \div$ <i>their</i> $(40 \div 4.5)) \times 1.3$
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42.

14			3 with correct full method	5	B4 for 2.3 to 2.4 as final answer or B3 for figs 23 to 24 final answer OR B1 for correct unit conversion of a value at some stage (not just 1000ml = 1 litre)  M1 for $56 \times 250$ soi 14 000 M1 for <i>their</i> $14\ 000 -$ <i>their</i> 10 000 soi 4 000 M1 for $\frac{\textit{their} 14\ 000 - \textit{their} 10\ 000}{\textit{their} 1700}$ oe soi 2.35...  ALTERNATIVE METHOD  M1 for $10\ 000 \div 250$ or $10 \div 0.25$ soi 40 [cups]  M1 for $56 -$ <i>their</i> 40 soi 16  M1 for $1700 \div 250$ or $1.7 \div 0.25$ soi 6.8 [cups] or 6 cups 200 ml or 6 or 7  M1 for <i>their</i> $16 \div$ <i>their</i> 6.8 oe soi 2.3 to 2.4	B4 and B3 Must be sure this is number of kettles oe and not a faulty unit conversion  Conversion may be implied by values of consistent order eg $56 \times .25$ or $14\ 000 - 10\ 000$  or $56 \times [0].25$ soi 14 or <i>their</i> $14 - 10$ soi 4 or $\frac{\textit{their} 14 - \textit{their} 10}{1.7}$  Use of kettle only B4 for answer 9 or B3 for 8.2 to 8.3 or B2 for figs 82 to 83 OR B1 for correct unit conversion at some stage AND M1 for $56 \times 250$ soi 14 000 M1 for $\frac{\textit{their} 14\ 000}{\textit{their} 1700}$ oe  OR M1 for $1700 \div 250$ or $1.7 \div 0.25$ soi 6.8 [cups] or 6 cups 200 ml or 6 or 7 M1 for $56 \div$ <i>their</i> 6.8 oe
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43.

17	a	5400 or 5401 or 5402 final answer	2	M1 for figs 35 ÷ figs 648, soi by figs 540[1...] or for 0.0000648 seen	
	b	Any reference to average/inexact weight oe [in packet weight or weight of a grain] or recognising that the number of grains of salt must be integer oe	1		Condone any mention of <ul style="list-style-type: none"> <li>• average for variation and/or</li> <li>• size for weight</li> </ul> Mark the best part if no contradiction or wrong statement See appendix

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44.

17		246	6	B1 for $6\frac{1}{2}$ , 6.5 or 6 h 30m  AND  M2 for their $6\frac{1}{2} \times 2 \times 12$ soi by 156 or M1 for their $6\frac{1}{2} \times 12$ soi by 78 or their $6\frac{1}{2} \times 2$  AND  M2 for $12 \times 1\frac{1}{2} \times 5$ soi by 90 or M1 for $12 \times 1\frac{1}{2}$ soi by 18 or $1\frac{1}{2} \times 5$ soi by $7\frac{1}{2}$ or $12 \times 5$ soi by 60	13, 78 or 156 imply B1
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45.

22	(a)	a correct distance conversion e.g. $400 \div 1000$ or $[0].4$ or $5 \times 1000$ or 5000  a scale factor e.g. $5[000] \div 400$ soi by figs 125 or $840 \div 66$ soi by 12.727... or 12.73 or figs 127  correct time conversion e.g. $14 \times 60$ or 840 or $66 \div 60$ or 1[m] 6[s] or 1.1 or $825 \div 60$  correct figures e.g. 13.75 or 13.7 or 13.8      [14] 5.09... or 5.1                    [5] 5090[. ...] or 5100                5000 825                                        840 12.5                                        12.7... 5.95 or 5.9 or 6                    6.06... or 6.1	M1  M1  M1  A1	accept any correct method    Dep on M3	
	(b)	an acceptable response e.g. [he will not maintain this rate because] he will get tired	1		Accept any correct reason must not be contradicted.

46.

25			28 or [£][0].28	5	<p><b>B1</b> for <math>7r + 15c = 7[00]</math> or <math>[r = ] c + [0.]12</math></p> <p><b>M1</b> for <math>7(c + [0.]12) + 15c = 7[00]</math> or better oe or <math>r - c = [0.]12</math></p> <p><b>M1</b> for <math>7c + 84 + 15c = 7[00]</math> or better oe or <math>7r - 7c = [0.]84</math></p> <p><b>M1</b> for <math>15c + 7c = 7[00] - [0.]84</math> or better</p>	<p>Allow any pair of letters, Trial-and-improvement will score 0 or 5 only</p> <p>allow work in pence or pounds i.e. removing brackets</p> <p>i.e. rearranging their equation</p>
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**OCR Thursday 8 November 2018 – Morning (Non-Calculator) Foundation Tier**

47.

8			[£]25 or 2500p nfw	6	<p><b>B3</b> for [£]265 or <b>B2</b> for 22000[p] or [£]220 or <b>M1</b> for <math>200 \times 110</math> or <math>2.[00] \times 110</math></p> <p>and</p> <p><b>B2</b> for [£]240 or <b>M1</b> for <math>20 \times 12</math></p>	
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**OCR Monday 12 November 2018 – Morning (Calculator) Foundation Tier**

48.

8	(a)		50	2	<b>M1</b> for $18 \times 2$ soi 36	
	(b)		9.3[0]	4	<p><b>B3</b> for answer 59.3 only or <b>B1</b> for 3.6 or 7.2 or 21.6 or 43.2</p> <p><b>B1</b> for 2.1 or 16.1</p> <p><b>M1</b> for 2 <i>their</i> adult cost + <i>their</i> child cost</p>	<p>No FT from <i>their</i> (a)</p> <p>If total cost and increase given, ignore total and mark only increase</p> <p>May be increase or total</p>

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

49.

10			786.65	4	<p><b>M1</b> for <math>28361 - 27612</math> soi by 749</p> <p><b>M1</b> for <i>their</i> <math>749 \times [0].85</math> implied by 636.65 or <i>their</i> <math>749 \times 85</math> implied by 63665</p> <p><b>M1</b> for <i>their</i> <math>636.65 + 150</math> or <i>their</i> <math>63665 + 15000</math></p>	Accept alternative methods
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50.

11	(a)		27.8[0]	4	<p><b>M1</b> for <math>14 \times \frac{3}{5}</math> oe implied by 8.4 or 8400</p> <p><b>B1</b> for 9 [kg] oe</p> <p>And</p> <p><b>M1</b> for <math>4 \times 6.15 + 3.2[0]</math> or for any other correct combination which isn't the cheapest</p>	<p>condone 9 used as tubs</p> <p>A method to find a combination of 9kg implies <b>B1</b></p>
	(b)		1881	3	<p><b>M2</b> for <math>1650 \times 1.14</math> oe</p> <p>Or</p> <p><b>M1</b> for <math>1650 \times [0].14</math> soi by 231</p>	

51.

14			26, 20, 25	5	<p><b>M2</b> for any complete correct equation or</p> <p><b>M1</b> for any two expressions e.g. <math>x, x + 6, x - 1</math> oe or equations using more than one variable e.g. <math>A = B + 6; C = A - 1, A + B + C = 71</math></p> <p><b>A1</b> for <math>x = 20,</math> or <math>x = 26</math> or <math>x = 25</math></p> <p><b>B1</b> for Aditi 26 or Becky 20 or Calli 25</p> <p>IF less than 3 marks scored <b>SC3</b> for 3 correct values attributed to the wrong person as final answer</p>	<p><math>x + x + 6 + x + 6 - 1 = 71</math> oe or <math>x + x - 6 + x - 1 = 71</math> oe or <math>x + x + 1 + x - 5 = 71</math> oe</p> <p>Allow other letters for <math>x</math></p> <p>must be different <math>A = B + 6</math> is the same as <math>B = A - 6</math></p> <p>Accept equivalent methods</p>
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**OCR Thursday 7 June 2018 – Morning (Non Calculator) Foundation Tier**

52.

8			1.07 or 107 cm clearly identified	3	<p><b>M2</b> for <math>\frac{0.83+1.31}{2}</math></p> <p>or</p> <p><b>M1</b> for <math>1.31 - 0.83</math> soi or 0.48</p> <p><b>M1</b> for <i>their</i> <math>0.48 \div 2 + 0.83</math> oe</p>	<p><b>M2</b> is spoilt by further incorrect working eg <math>\frac{0.83+1.31}{2} + 0.83</math> is <b>M0</b></p>
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53.

15			[£]225[.00] nfw	6	<p>B3 for 54 [tiles] OR M1 <math>3 \times 4.5</math> oe or <math>300 \times 450</math> oe or <math>4.5 \div 0.5</math> or <math>450 \div 50</math> oe soi and M1 <math>0.5 \times 0.5</math> oe or <math>50 \times 50</math> oe or <math>3 \div 0.5</math> or <math>300 \div 50</math> oe soi</p> <p>AND</p> <p>M1 for <i>their</i> <math>6 \times 20</math></p> <p>M1 for <i>their</i> <math>14 \times 7.5</math></p>	<p>Could be on diagram</p> <p>Could be in diagram</p> <p><i>their</i> 6 is correct number of packs for <i>their</i> number of tiles – must be positive integer, implied by 120</p> <p><i>their</i> 14 is <i>their</i> answer to <math>(3 \times 4.5)</math> rounded up to next integer, implied by 105</p>
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OCR Tuesday 12 June 2018– Morning (Calculator) Foundation Tier

54.

10	(a)		12	1		
	(b)		2 h 24 min nfw	4	<p>B3 for 2 h and <math>0.4 \times 60</math> oe or 144[<i>min</i>] nfw or B2 for 2.4 h or M2 for <math>\frac{\textit{their} 12}{5}</math> or M1 for converting <i>their</i> 2.4 hours correctly to hours and minutes</p>	<p>Working may all be in minutes so award comparable M and B marks oe may be <math>60 \div 10 (= 6) \times 4</math></p> <p>B2 for answer space completed as 2.4 [hours] and 144 [minutes] 2.4 may be <math>2\frac{2}{5}</math> or equivalent fraction or <i>their</i> 144 minutes, if working in minutes <i>their</i> 2.4 hours or <i>their</i> 144 minutes must come from some working <i>Their</i> 2.4h not integer and <math>&gt; 1</math> <i>Their</i> 144 min not <math>60n</math> and <math>&gt; 60</math></p>

OCR Thursday 2 November 2017– Morning (Calculator) Foundation Tier

55.

11			6	4	<p>B3 for 3 and 2.25 or for 5.25 OR M1 <math>360 \div 15</math> soi by 24 M1 <math>1440 \div 80</math> soi by 18 M1 <i>their</i> <math>24 \div 8</math> and <i>their</i> <math>18 \div 8</math> or <i>their</i> <math>(24 + 18) \div 8</math> OR M1 for <math>15 \times 8</math> soi by 120 M1 for <math>80 \times 8</math> soi by 640 M1 for <math>360 \div \textit{their} 120</math> and <math>1440 \div \textit{their} 640</math></p>	Accept equivalent alternative methods
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56.

14		12, 36, 14	6	<p><b>B1</b> for one of [Gugu] <math>3x</math> or [Deanna] <math>x+2</math>  <b>M1</b> for <math>52.7 \div [0.]85</math> oe soi by figs 62  <b>M1</b> for <math>x + 3x + x + 2</math>  <b>M1ft</b> for <math>5x = 60</math>  <b>A1</b> for <math>x = 12</math></p>	
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**OCR Thursday 2 November 2017– Morning (Calculator) Foundation Tier**

57.

16	(a)	<p><math>93 \div 3</math> or 31 or <math>100 \div 3</math> or 33.3... or <math>55 \div 1.55</math> or <math>3300 \div 93</math> or 35.5 or 35.48... or <math>55 \div 93</math> or 0.6 or 0.59...</p> <p><i>Their</i> <math>31 \times 100</math> or 3100 or <i>their</i> <math>33.3... \times 93</math> or <i>their</i> <math>35.5 \times 3</math></p> <p><i>their</i> <math>3100 \div 60</math> soi by 51.6[6.] or 51.7 or 52 or 51[<i>min</i>] 40[<i>sec</i>] or <math>55 \times 60</math> soi 3300 or 106[.5] or 106.45...</p> <p><math>106.45</math> or <math>106[.5] &gt; 100</math> or 51.6[6.] or 51.7 or 52 or 51[<i>min</i>] 40[<i>sec</i>] <math>&lt; 55</math> or 31[00] <math>&lt; 33[00]</math> or So he can swim that distance</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>accept any correct method</p> <p>Conclusion or comparison of correct values required</p>	e.g. 106.45 lengths in 55 mins
	(b)	he swims at the same rate	1	accept any correct statement e.g. he does not slow down, no breaks	See appendices
	(c)	he will get tired/he will slow down/not take breaks	1	accept any correct statement	See appendices

**Pearson Edexcel – Sample Papers - Paper 1 (Non-Calculator) Foundation Tier**

58.

7		7.50	<p>M1 <math>60 \div 8</math></p> <p>A1 accept 7.5</p>
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59.

15		Correct diagram with layout and lengths	<p>M1 for changing to consistent units eg. <math>1000 \div 10</math> or <math>40 \times 10</math></p> <p>M1 for interpreting information and a process to fit tiles in floor area eg. may be seen in a sketch or a calculation</p> <p>C1 for a diagram to communicate a correct layout with lengths clearly identified</p>
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OCR Thursday 8 June 2017 – Morning (Non - Calculator) Foundation Tier

60.

3	a	When multiplying [12.4] by 10, Nathan has not moved the figures to the left [he has just added a 0]  285.2	1	Accept $12.4 \times 10 = 124$ not 12.40	Condone he has not moved the decimal point to the right so Accept reference to either first or second line of working <b>See Appendix B</b>  Accept 248 seen If $12.4 \times 23$ is worked out using grid method, allow M1 if no more than one error. If other long multiplication method used, allow M1 if not more than one arithmetic slip but M0 if error in place value
			2	<b>M1</b> for $12.4 \times 20 = 248$ or $124 \times 2 = 248$	
	b	8.60	3	<b>M2</b> for $6.45 \times 4 + 3$ oe Or <b>M1</b> for $6.45 \times 4$ oe or 25.8[0] <b>seen</b>	

OCR Sample Question Paper 1 – Morning/Afternoon (Calculator) Foundation Tier

61.

11		Correct reasoning	2 1 AO1.3a 1 AO2.2	<b>M1</b> for $4a + 12 - 3a \pm 6$	
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62.

19		£25	5 2 AO1.3b 3 AO3.1d	<p><b>M1</b> for <math>10 \times \frac{2}{5} = 4</math> litres red</p> <p>or</p> <p><math>10 \times \frac{3}{5} = 6</math> litres white</p> <p><b>M1</b> for red costs £8 per litre</p> <p>or</p> <p>white costs £0.50 per litre</p> <p><b>M1</b> for cost of one 10-litre can is <i>their '4' × their '8' + their '6' × their '0.5'</i></p> <p><b>M1</b> for <math>60 - \text{their '35'}</math></p>	<p>Alternative method:</p> <p>M1 for <math>2 : 3 = 20</math> litres red : 30 litres white</p> <p>M1 for <math>2 \times £80 + 3 \times £5 = £175</math></p> <p>M1 for <math>\frac{\text{their '175'}}{5} = 35</math></p> <p>M1 for <math>60 - \text{their '35'}</math></p>
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OCR Sample Question Paper 2 – Morning/Afternoon (Non - Calculator) Foundation Tier

63.

11	(a)	45 000	2 2 AO1.3a	M1 for $50\,000 \times 0.9$ <b>soi</b> or $50\,000 - 5000$	
	(b)	Total value of goods sold in May was £32 805, which is less than £35 000	3 3 AO2.2	M2 for $50\,000$ (or $45\,000$ ) $\times 0.9$ used three times (or two times) <b>soi</b> or decreasing by 10% three times Or M1 for $45\,000 \times 0.9$ or $45\,000 - 4500$	Implied by 36 450 and 32 805  Implied by 40 500
	(c)	8	5 3 AO1.3b 2 AO3.1d	M2 for $100\,000 \times 1.2 \times 0.9$ Or M1 for $100\,000 \times 1.2$ <b>oe</b> M1 for <i>their</i> ' $120\,000$ ' $\times 0.9$ <b>oe</b> And A1 for 108 000 M1 for $\frac{\text{their } '108\,000' - 100\,000}{100\,000} \times 100$ <b>oe</b>	

OCR Sample Question Paper 3 – Morning/Afternoon (Calculator) Foundation Tier

64.

3	(a)	35 000	2 1 AO1.3a 1 AO3.1c	M1 for $7000 \times 5$ <b>oe</b>	
	(b)	No, following correct working and estimates	4 1 AO1.3a 1 AO2.4a 1 AO3.1d 1 AO3.3	M2 for $\frac{\text{their } '35000' \times 5}{1000}$ or M1 for <i>their</i> ' $35\,000$ ' $\times 5$ and B1 for valid estimate of weight a person can carry (5 kg–75 kg)  Allow estimates for <i>their</i> ' $35\,000$ '	£7000 of 5g coins weigh 175 kg  'No' may be implied by seeing mass of coins and estimate of carry weight identified  Accept any valid alternate argument
	(c)	Valid comment about how a change in the assumption would influence their decision.	1 1 AO3.5	FT from part (b)	

OCR Sample Question Paper 3 – Morning/Afternoon (Calculator) Foundation Tier

65.

11	(a)	Explanation, e.g. there should be 4 dp in the answer or the answer should be smaller than 0.38 (or 0.26) or because $0.4 \times 0.3 = 0.12$	1 1 AO2.5a	Clear sensible reason ( <b>not</b> just giving the actual answer with no working or explanation)	Condone: multiplying two decimals means a smaller number <b>oe</b>
	(b)	Explanation, e.g. the answer should be bigger than 1 because both $\frac{3}{4}$ and $\frac{2}{3}$ are bigger than $\frac{1}{2}$ <b>oe</b> or the answer should be bigger than $\frac{3}{4}$ but $\frac{5}{7}$ is smaller than $\frac{3}{4}$ <b>oe</b>	1 1 AO2.5a		Exemplars for 1 mark: <ul style="list-style-type: none"> <li>“you don't add fractions by adding tops and bottoms”</li> <li>“you don't add the denominators”</li> <li>“you have to find a common denominator first”</li> <li><math>\frac{3}{4} + \frac{2}{3}</math> is obviously <math>&gt; 1</math></li> </ul>

AQA Tuesday 19 May 2020 – Morning (Non-Calculator) Foundation Tier

66.

Q	Answer	Mark	Comments
<b>9</b>	<b>Alternative method 1</b>		
	(12 – 8) × 1200 or 4 × 1200 or 4800	M1	oe
	12 500 – 7600 or 4900	M1	oe
	4800 and 4900 and No	A1	
	<b>Alternative method 2</b>		
	(12 – 8) × 1200 or 4 × 1200 or 4800	M1	oe
	12 500 – their 4800 or 7700	M1dep	oe
	7700 and No	A1	
	<b>Alternative method 3</b>		
	(12 – 8) × 1200 or 4 × 1200 or 4800	M1	oe
	7600 + their 4800 or 12 400	M1dep	oe
	12 400 and No	A1	
	<b>Alternative method 4</b>		
	12 500 – 7600 or 4900	M1	oe
	their 4900 ÷ (12 – 8) or 1225	M1dep	oe
	1225 and No	A1	

<b>9 cont</b>	<b>Alternative method 5</b>		
	12 500 – 7600 or 4900	M1	oe
	their 4900 ÷ 1200 or 4.1 (or better)	M1dep	oe accept any indication of “more than 4” for 4.1
	4.1 (or better) and (12 – 8 =) 4 and No	A1	their 4 must be months remaining and not 4.1 rounded
	<b>Additional Guidance</b>		
	4 × 1200 = 4800, 7600 + 4800 = 12 600 and Yes	Alt3	M1M1depA0
	12 – 8 = 3, 3 × 1200 = 3600, 3600 + 7600 = 11 200 and No	Alt3	M1M1depA0
	3 × 1200 = 3600, 12 500 – 3600 = 8900 and No		M0M0depA0
	12 500 – 7600 = 4900, 4900 ÷ 1200 = 4.1 = 4 and No (4 comes from rounding, not the number of months remaining)		M1M1A0
	Further calculations that say how much more he'd need to earn (annually or monthly) must be correct (if given) to score the A1		

**AQA Thursday 4 June 2020 – Morning (Calculator) Foundation Tier**

67.

Q	Answer	Mark	Comments
<b>11</b>	B and (A =) –11 and (B =) –13	B2	B1 (A =) –11 or (B =) –13
	<b>Additional Guidance</b>		
	If answer line blank, accept B clearly indicated in working		
	Accept –13 on answer line instead of B		
	Accept $47 \times 21 - 10^3$ on answer line instead of B		
	B with neither value correct		B0

68.

Q	Answer	Mark	Comments
13	318 ÷ 30 or 10.6(0) or 287 ÷ 28 or 10.25	M1	oe eg working in pence
	318 ÷ 30 – 287 ÷ 28 or 10.6(0) – 10.25 or 0.6(0) – 0.25 or 0.35	M1dep	oe eg working in pence
	35	A1	allow £0.35 pence or £0.35p pence
	<b>Additional Guidance</b>		
	Answer 0.35 pence		M2A0
	£0.35 seen but answer 0.35 pence		M2A0
	35p seen but answer 0.35 pence		M2A0
	Allow recovery of units eg 10.6(0) – 10.25 = 35		M2A1

AQA Monday 8 June 2020 – Morning (Calculator) Foundation Tier

69.

Q	Answer	Mark	Comments	
6	<b>Alternative method 1</b>			
	$267.5(0) - 125$ or $142.5(0)$	M1	oe	
	$\frac{\text{their } 142.5(0)}{7.5(0)}$	M1dep	oe	
	19	A1		
	<b>Alternative method 2</b>			
	$\frac{267.5(0)}{7.5(0)}$ or $35.\dot{6}$	M1	oe	
	their $35.\dot{6} - \frac{125}{7.5(0)}$	M1dep	oe	
	19	A1		
	<b>Additional Guidance</b>			
	Award M1 or M2 work even if not subsequently used			
	Build up methods to 142.5(0) score first M1 only unless fully correct			
	Build up methods from 125 score M0 unless fully correct			
Accept 35.66... or 35.67 for $35.\dot{6}$				

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

70.

7	$7 + 5$ or 12 or 17 or 36	M1	
	19 or 19.00	A1	19.0 is M1A0
	<b>Additional Guidance</b>		
	Ignore names if used		
	Condone £19p or £19.00p		M1A1

AQA Thursday 6 June 2019 – Morning (Calculator) Foundation Tier

71.

<b>7</b>	261.43	B1	in correct place																											
	14.66	B1	in correct place																											
	1517.04	B1	in correct place																											
	<b>Additional Guidance</b>																													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Date</th> <th style="width: 25%;">Description</th> <th style="width: 15%;">Credit (£)</th> <th style="width: 15%;">Debit (£)</th> <th style="width: 30%;">Balance (£)</th> </tr> </thead> <tbody> <tr> <td>01/04/2019</td> <td>Starting balance</td> <td></td> <td></td> <td>261.43</td> </tr> <tr> <td>05/04/2019</td> <td>Council tax</td> <td></td> <td>189.34</td> <td>72.09</td> </tr> <tr> <td>10/04/2019</td> <td>Refund</td> <td>14.66</td> <td></td> <td>86.75</td> </tr> <tr> <td>12/04/2019</td> <td>Salary</td> <td>1430.29</td> <td></td> <td>1517.04</td> </tr> </tbody> </table>				Date	Description	Credit (£)	Debit (£)	Balance (£)	01/04/2019	Starting balance			261.43	05/04/2019	Council tax		189.34	72.09	10/04/2019	Refund	14.66		86.75	12/04/2019	Salary	1430.29		1517.04	<b>B3</b>
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	05/04/2019	Council tax		189.34	72.09																									
	10/04/2019	Refund	14.66		86.75																									
	12/04/2019	Salary	1430.29		1517.04																									
Mark the table																														
Condone £ and p on values																														
Ignore working or values in shaded cells																														
-14.66				<b>2nd B0</b>																										

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

72.

<b>6(a)</b>	<b>Alternative method 1</b>		
	8.8(0) ÷ 11 or (0).8(0) or 880 ÷ 11 or 80	M1	oe 8.8(0) × 14 or 123.2(0) or 880 × 14 or 12320
	their (0).8(0) × 3 (+ 8.8(0)) or 2.4(0) (+ 8.8(0)) or their 80 × 3 (+ 880) or 240 (+ 880) or their (0).8(0) × 14 or their 80 × 14 or 11.2 or 1120	M1dep	oe their 123.2(0) ÷ 11 or their 12320 ÷ 11
	11.20	A1	Condone (£)11.20p
	<b>Alternative method 2</b>		
	11 ÷ 8.8(0) or 1.25 or 11 ÷ 880 or 0.0125	M1	oe
	14 ÷ their 1.25 or 14 ÷ their 0.0125 or 11.2 or 1120	M1dep	oe
	11.20	A1	Condone (£)11.20p
	<b>Additional Guidance</b>		
	$8.8(0) \times \frac{14}{11}$ or $8.8(0) \times 1.27(\dots)$		M1M1
	$\frac{56}{5}$ is oe for 11.2		M1M1
	$\frac{4}{5}$ is oe for 0.8, $\frac{5}{4}$ is oe for 1.25, $\frac{1}{80}$ is oe for 0.0125		M1



<b>6(b)</b>	<b>Alternative method 1 – answer in (a) correct or answer in (a) not used</b>	
	Ticks the box The total cost is <b>less</b> than my answer to part (a) and correct reason	B2  correct reasons include more tracks cost less 10(p) (less) (costs) (£)11.1(0) B1 Ticks the box The total cost is <b>less</b> than my answer to part (a)
	<b>Alternative method 2 – answer in (a) incorrect and used for comparison</b>	
Ticks the box for the correct decision for comparison with their answer in part (a) and correct reason from comparison with their answer in part (a)	B2ft  B1ft Ticks the box for the correct decision for comparison with their answer in part (a)	

**Additional Guidance is on the next page**

<b>Additional Guidance</b>	
<b>6(b) cont</b>	Condone irrelevant statements with a correct reason
	Do not accept an incorrect reason with a correct reason
	Examples of correct reasons
	$6 \times 0.85 = 5.1$ , $8 \times 0.75 = 6$ , $6 + 5.1 = 11.1$
	+ 30p – 40p
	2 tracks less by 5p means 10p
	8 is more than 6 and cancels the 6 5ps added as 8 5ps taken away
	Only 6 tracks cost 5p more on each and 8 tracks cost 5p less on each, so the 8 tracks that are less take away the extra money you pay for 6
	The cost of 8 tracks is less by 5p each, but the cost of 6 tracks is more by 5p, this means that everything cancels apart from 2 of the 8 tracks
	The first 6 are 5p more, the last 8 are 5p less this means it is cheaper
	You are taking 5p off more tracks than you are adding 5p
	Cost is less as adding 5p on only 6 but taking away 5p on 8
	8 less by 5p, 6 more by 5p, 8 is more than 6
	Examples of incorrect reasons
	As 6 tracks are 5p more on each but 8 tracks are 5p less on each (no reference to 8 being greater than 6)
	8 tracks is more than 6 tracks (no reference to cost)
	Because $8 - 6 = 2$ so therefore there are 2 less (no reference to cost)
	Because 8 tracks is less by 5p so 16 will be less by 10p
	If the tracks are cheaper then the total price will be cheaper (referring to the cost of all 14 tracks being 5p cheaper)
	The more tracks, the less money each is worth by 5p each (referring to the cost of all 14 tracks being 5p cheaper)
Because there are more than 8 tracks on B so it's less because it's 5p less for each track (referring to the cost of all 14 tracks being 5p cheaper)	

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73.

<b>6</b>	18 ÷ 3 or 6 or 18 × 5 or 90 or $\frac{5}{3}$	M1	oe
	30	A1	
	<b>Additional Guidance</b>		
	18 × 10 ÷ 6 with incorrect or no answer		M1A0
	Decimals for $\frac{5}{3}$ must be correct to 1dp or better (ie 1.7, 1.67, etc)		
	$18 \div \frac{3}{5}$ is M1 but $\frac{3}{5}$ alone is M0		

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74.

<b>5</b>	<b>Alternative method 1</b>		
	37 × 0.25 or 9.25	M1	must be working in £
	312.65	A1	condone £312.65p
	<b>Alternative method 2</b>		
	303.4 ÷ 37 + 0.25 or 8.45	M1	must be working in £
	312.65	A1	condone £312.65p
	<b>Additional Guidance</b>		
	Working in pence must be recovered eg1 37 × 25 = 925 eg2 37 × 25 = 925 and used as 9.25 eg3 8.20 + 25 = 33.20 eg4 8.20 + 25 = 8.45		M0 M1 M0 M1
	Do not accept 7 as a misread of 37		M0

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75.

<b>8</b>	<b>Alternative method 1</b>		
	300 × 3 or 900	M1	hot dog sales
	300 ÷ 6 or 50 or 300 ÷ 10 or 30	M1	packs of bread rolls  jars of sausages
	their 50 × 42 (÷ 100) or 2100 or 21 or their 30 × 2.5(0) or 75 or 96 or 393	M1dep	dep on 2nd M1 cost of bread rolls or cost of sausages  cost of bread rolls and sausages  total costs
	their 900 – (their 21 + their 75 + 240 + 57) or their 900 – their 393	M1dep	oe dep on all M marks total profit from sales – costs
	507	A1	correct money notation

Continues on next page

<b>8 cont</b>	<b>Alternative method 2</b>		
	240 ÷ 300 or 0.8 or 42 ÷ 6 or 7 or 2.5(0) ÷ 10 or 0.25 or 57 ÷ 300 or 0.19	M1	market fee per hot dog  cost of bread roll per hot dog  cost of sausage per hot dog  other costs per hot dog
	Any two of 240 ÷ 300 or 0.8 42 ÷ 6 or 7 2.5(0) ÷ 10 or 0.25 57 ÷ 300 or 0.19	M1dep	
	their 0.8 + their 0.07 + their 0.25 + their 0.19 or 1.31	M1dep	total cost per hot dog their values must come from correct calculations 1.69 implies M3
	(3 – their 1.31) × 300 or 1.69 × 300	M1dep	total profit for 300 hot dogs
	507	A1	correct money notation
	<b>Additional Guidance</b>		
	Accept working in pounds or pence for all four method marks		
	In Alt1 units must be consistent for the 4th method mark		
	In Alt2 units must be consistent for the 3rd method mark		
Condone £507.00p		M1M1M1M1A1	
Answer £507.0		M1M1M1M1A0	

<b>16</b>	<b>Alternative method 1</b>		
	260 × 0.4(0) or 104(.00) or 260 × 40 or 10 400	M1	oe cost of claim
	260 ÷ 52 or 5	M1	oe number of gallons
	their 5 × 5.36 or 26.8(0)	M1dep	oe dep on 2nd M1 cost of petrol
	77.20	A1	
	<b>Alternative method 2</b>		
	260 ÷ 52 or 5	M1	oe number of gallons
	52 × 0.4(0) or 20.80 or 52 × 40 or 2080	M1	oe claim per gallon
	their 20.80 – 5.36 or 15.44 or their 2080 – 536 or 1544	M1dep	dep on 2nd M1 claim per gallon – cost per gallon
	77.20	A1	
	<b>Alternative method 3</b>		
	5.36 ÷ 52 or 0.10... or 536 ÷ 52 or 10.(...)	M1	cost of petrol per mile
	0.4 – their 0.10... or [0.2969, 0.3] or 40 – their 10.(...) or [29.69, 30]	M1dep	claim per mile – cost per mile
	their [0.2969, 0.3] × 260 or their [29.69, 30] ÷ 100 × 260	M1dep	
	77.20	A1	

<b>Additional Guidance</b>		
<b>16 cont</b>	Accept working in pounds or pence for all three method marks	
	Condone £77.20p	M1M1M1A1
	77.2	M1M1M1
	Answer £77.2	M1M1M1A0

77.

<b>Alternative method 1 – coaches, income, fuel, drivers, profit, answer</b>			
<b>11</b>	6	B1	number of coaches
	300 × 25 or 7500 or 50 × 25 or 1250	M1	total income for one or all coaches
	(their 6) × 200 × 0.7 or 140 or 840 or (their 6) × 200 × 70 or 14 000 or 84 000	M1	cost of fuel for one or all coaches 140 is implied by 230 (fuel + one driver)
	their 6 × 90 or 540 or their 1250 – their 140 – 90 or 1020	M1	cost of all drivers or profit for one coach
	their 7500 – their 840 – their 540 or their 6 × their 1020	M1dep	oe method to calculate profit must be consistent units dependent on M3
	6120	A1	

<b>11(cont)</b>	<b>Alternative method 2 – profit per passenger</b>		
	90 ÷ 50 or 1.8(0)	B1	cost per passenger for a driver
	200 × 0.7 or 140 or 200 × 70 or 14 000	M1	cost of fuel per coach
	their 140 ÷ 50 or 2.8(0) or their 14 000 ÷ 50 or 280	M1dep	cost per passenger for the fuel dependent on M1
	25 – their 1.8(0) – their 2.8(0) or 20.4(0)	M1dep	oe profit made per passenger must be consistent units dependent on B1M1M1
	their 20.4(0) × 300	M1dep	method to calculate total profit must be consistent units dependent on previous mark
	6120	A1	
	<b>Additional Guidance</b>		
	540 + 840 or 1380 (without evidence for the second mark)		B1M0M1M1 (Alt 1)
	6 (for B1) may be implied by a calculation or value such as 540		(Alt 1)



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78.

8	<table border="1"> <tr><td>3</td><td>8</td><td>5</td><td>10</td></tr> <tr><td>12</td><td></td><td></td><td>9</td></tr> <tr><td>4</td><td></td><td></td><td>1</td></tr> <tr><td>7</td><td>11</td><td>2</td><td>6</td></tr> </table> <p>with 1 and 9 in either order</p>	3	8	5	10	12			9	4			1	7	11	2	6	B3	<p>B2 for three sides adding to 26 using the given numbers with no repeats across the three sides</p> <p>B1 for one or two sides adding to 26 using the given numbers with no repeats across the one or two sides</p>																	
	3	8	5	10																																
	12			9																																
4			1																																	
7	11	2	6																																	
<b>Additional Guidance</b>																																				
	<table border="1"> <tr><td>3</td><td>8</td><td>5</td><td>10</td></tr> <tr><td>12</td><td></td><td></td><td>1</td></tr> <tr><td>4</td><td></td><td></td><td>6</td></tr> <tr><td>7</td><td>8</td><td>2</td><td>9</td></tr> </table> <p>Four sides add to 26 but across the four sides there is one repeat (8) so only three sides qualify</p>	3	8	5	10	12			1	4			6	7	8	2	9	B2																		
3	8	5	10																																	
12			1																																	
4			6																																	
7	8	2	9																																	
	<table border="1"> <tr><td>3</td><td>11</td><td>5</td><td>10</td></tr> <tr><td>12</td><td></td><td></td><td>3</td></tr> <tr><td>4</td><td></td><td></td><td>5</td></tr> <tr><td>7</td><td>9</td><td>2</td><td>8</td></tr> </table> <p>Three sides add to 26 but across these three sides there is one repeat (3) so only two sides qualify</p>	3	11	5	10	12			3	4			5	7	9	2	8	<table border="1"> <tr><td>3</td><td>9</td><td>5</td><td>10</td></tr> <tr><td>12</td><td></td><td></td><td>3</td></tr> <tr><td>4</td><td></td><td></td><td>10</td></tr> <tr><td>7</td><td>14</td><td>2</td><td>3</td></tr> </table> <p>One side has 14, one side has repeats of 10 and 3 so these two sides do not qualify. Only one of the remaining sides adds to 26 so qualifies</p>	3	9	5	10	12			3	4			10	7	14	2	3	B1	
3	11	5	10																																	
12			3																																	
4			5																																	
7	9	2	8																																	
3	9	5	10																																	
12			3																																	
4			10																																	
7	14	2	3																																	

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79.

11	Any one of 123660 1339(65) 1442(70) 1545(75) 164880 1751(85) 185490 195795	M1	must be evaluated correctly number pairs may be shown separately eg $15 \times 3 = 45$ (and $15 \times 5 = 75$ ) $16 \times 3 = 48$ and $16 \times 5 = 80$
	At least two of 123660 1339(65) 1442(70) 1545(75) 164880 1751(85) 185490 195795 or 18 and 54 and 90	M1dep	must be evaluated correctly number pairs may be shown separately
	185490	A1	
	<b>Additional Guidance</b>		
	185490		M1M1A1
	The digits in brackets are not required for the M marks as duplication has already been shown but if seen must be correct		
	Answer 18 54 90 18 54 90		M2A1
	185490 written in first three spaces with nothing else on the answer line		M2A1
185490 written in first three spaces followed by other numbers		M2A0	
For the final mark do not accept miscopies to the answer line			

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80.

<b>6</b>	<b>Alternative method 1</b>		
	$19 \times 28$ or 532	M1	
	their 532 – 379	M1dep	
	153	A1	
	<b>Alternative method 2</b>		
	$379 \div 19$ or 19.9...	M1	implied by [8.05, 8.1]
	$(28 - \text{their } 19.9\dots) \times 19$	M1dep	implied by [152.95, 153.9]
	153	A1	
	<b>Additional Guidance</b>		
	$152.95$ from $(28 - 19.95) \times 19$		M1M1A0

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81.

15	<p>A correct trial using one from  a multiple of 7 subtracted from 36  a multiple of 7 plus three equal  whole numbers  three equal whole numbers  subtracted from 36</p> <p>or</p> <p>Lists four whole numbers, of which  three are equal, that sum to 36</p> <p>or</p> <p>Lists four whole numbers that sum to  36 with at least one multiple of 7</p>	M1	<p>eg <math>36 - 7 = 29</math>  eg <math>21 + 4 + 4 + 4 = 33</math>  eg <math>8 + 8 + 8 = 24</math> and <math>36 - 24 = 12</math>  eg 6, 6, 6, 18  eg 14, 10, 8, 4</p>
	21, 5, 5, 5	A1	
	2625	A1ft	ft correct multiplication of their four positive whole numbers with M1 awarded
	<b>Additional Guidance</b>		
	A correct trial or list must only use positive whole numbers		
	21 + 4 + 4 + 4 = 33 followed by (21 × 4 × 4 × 4 =) 1344		M1A0A1ft
	28, 2, 3, 3 (list sums to 36) followed by (28 × 2 × 3 × 3 =) 504		M1A0A1ft
	14, 10, 8, 4 followed by (14 × 10 × 8 × 4 =) 4480		M1A0A1ft
	8 + 8 + 8 = 24 and 36 – 24 = 12 followed by (8 × 8 × 8 × 12 =) 6144		M1A0A1ft
	6 × 6 × 6 × 18 = 3888		M1A0A1ft
13, 10, 8, 5 followed by (13 × 10 × 8 × 5 =) 5200		M0A0A0ft	
0, 12, 12, 12		M0	

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82.

<b>6a</b>	Division set up, with 8 and a remainder 3 seen in correct position or $830 \leq \text{answer} < 840$ but not 834	M1	$\begin{array}{r} 8 \\ 8 \overline{)91374} \end{array}$ or $\begin{array}{r} 8 \\ 9 \ 1 \ 7 \ 4 \\ \underline{8 \ 8} \\ 3 \end{array}$
	834	A1	
	<b>Additional Guidance</b>		
	Build up method or chunking method must lead to $830 \leq \text{answer} < 840$ to score M1 or better		

<b>6b</b>	$\frac{35}{42} (+) \frac{18}{42}$	M1	oe fractions with a correct common denominator and at least one correct numerator	
	$\frac{53}{42}$	A1	oe improper fraction	
	$1 \frac{11}{42}$	B1ft	oe mixed number ft for correct conversion of an improper fraction to a mixed number	
	<b>Additional Guidance</b>			
	For B1ft the mixed number must not be an integer			
	Beware $5 + 3 = 53$			M0
	When attempts are made to cancel the fraction, full marks cannot be scored $\frac{53}{42} = \frac{9}{4} = 2 \frac{1}{4}$ (attempt to cancel occurs before conversion to mixed number) $\frac{53}{42} = 1 \frac{11}{42} = 1 \frac{1}{3}$ (attempt to cancel occurs after completely correct answer seen)			M1A1B0  M1A1B0

83.

<b>8</b>	17 (days)	B1	may be implied
	their $17 \times 8$ or 136 or their $17 \times 0.08$	M1	oe eg build up – must be fully correct method repeated addition can imply their number of days
	1.36	A1ft	ft their 17 accept 136p if £ sign deleted
	<b>Additional Guidance</b>		
	16 (days) and £1.28 18 (days) and £1.44		B0M1A1ft B0M1A1ft
	Answer only £1.28 Answer only £1.44		B0M0A0 B0M0A0
	Beware digits arising from incorrect work eg $18 \times 0.8 = 14.4(0)$		B0M0A0
	Condone £1.36p		B1M1A1

84.

<b>16</b>	$\frac{1}{5}$ in top centre cell 1 in centre cell $\frac{1}{10}$ in bottom right cell	<b>B3</b>	oe decimals B2 any two correct or the product of the centre column and the diagonal from top left to bottom right are both 1 B1 any one correct or the product of the centre column or the diagonal from top left to bottom right is 1																		
	<b>Additional Guidance</b>																				
	A response can be awarded B2 if it meets both ways of scoring B1 Eg one correct value <b>and</b> the product of the centre column is 1 (see example below right)																				
	<table border="1" style="display: inline-table; margin-right: 10px;"> <tr><td>10</td><td><math>\frac{1}{15}</math></td><td><math>\frac{1}{2}</math></td></tr> <tr><td><math>\frac{1}{20}</math></td><td>3</td><td>20</td></tr> <tr><td>2</td><td>5</td><td><math>\frac{1}{30}</math></td></tr> </table> Diagonal and centre column each have product 1	10	$\frac{1}{15}$	$\frac{1}{2}$	$\frac{1}{20}$	3	20	2	5	$\frac{1}{30}$	or	<table border="1" style="display: inline-table; margin-right: 10px;"> <tr><td>10</td><td><math>\frac{1}{50}</math></td><td><math>\frac{1}{2}</math></td></tr> <tr><td><math>\frac{1}{20}</math></td><td>10</td><td>20</td></tr> <tr><td>2</td><td>5</td><td><math>\frac{1}{10}</math></td></tr> </table> Bottom right cell correct and centre column = 1	10	$\frac{1}{50}$	$\frac{1}{2}$	$\frac{1}{20}$	10	20	2	5	$\frac{1}{10}$
10	$\frac{1}{15}$	$\frac{1}{2}$																			
$\frac{1}{20}$	3	20																			
2	5	$\frac{1}{30}$																			
10	$\frac{1}{50}$	$\frac{1}{2}$																			
$\frac{1}{20}$	10	20																			
2	5	$\frac{1}{10}$																			
Centre column has product 1 <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>10</td><td><math>\frac{1}{50}</math></td><td><math>\frac{1}{2}</math></td></tr> <tr><td><math>\frac{1}{20}</math></td><td>10</td><td>20</td></tr> <tr><td>2</td><td>5</td><td><math>\frac{2}{10}</math></td></tr> </table>	10	$\frac{1}{50}$	$\frac{1}{2}$	$\frac{1}{20}$	10	20	2	5	$\frac{2}{10}$	or	Diagonal has product 1 <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>10</td><td><math>\frac{1}{20}</math></td><td><math>\frac{1}{2}</math></td></tr> <tr><td><math>\frac{1}{20}</math></td><td>8</td><td>20</td></tr> <tr><td>2</td><td>5</td><td><math>\frac{1}{80}</math></td></tr> </table>	10	$\frac{1}{20}$	$\frac{1}{2}$	$\frac{1}{20}$	8	20	2	5	$\frac{1}{80}$	<b>B1</b>
10	$\frac{1}{50}$	$\frac{1}{2}$																			
$\frac{1}{20}$	10	20																			
2	5	$\frac{2}{10}$																			
10	$\frac{1}{20}$	$\frac{1}{2}$																			
$\frac{1}{20}$	8	20																			
2	5	$\frac{1}{80}$																			

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85.

<b>7</b>	<b>Alternative method 1</b>		
	$\pounds 2 + \pounds 1 + 50\text{p} + 20\text{p} + 20\text{p} + 5\text{p} + 2\text{p}$ or $(\pounds)3.97$ or $\pounds 1 + 50\text{p} + 2\text{p} + 1\text{p}$ or $(\pounds)1.53$ or $\pounds 2 + \pounds 1 + 50\text{p} + 20\text{p} + 20\text{p} + 5\text{p} + 2\text{p} + \pounds 1 + 50\text{p} + 2\text{p} + 1\text{p}$ or $(\pounds)5.5(0)$ or $\pounds 2 + \pounds 1 + 50\text{p} + 20\text{p} + 20\text{p} + 5\text{p} + 2\text{p} - \pounds 1 - 50\text{p} - 2\text{p} - 1\text{p}$ or $(\pounds)2.44$	M1	Accept incorrect or missing units  Totals either set of coins  or  Totals all coins  or  Works out difference
	(their 3.97 + their 1.53) + 2 or their $(\pounds) 5.5(0) + 2$ or $(\pounds)2.75$ or (their 3.97 – their 1.53) + 2 or their $(\pounds) 2.44 + 2$ or $(\pounds)1.22$	M1dep	oe Accept incorrect or missing units
	$\pounds 1, 20\text{p}$ and $2\text{p}$	A1	oe eg $\pounds 1.00, \pounds 0.20, \pounds 0.02$ Correct units must be given
	<b>Alternative method 2</b>		
	Moves 3 coins from Eve to Ola and correctly evaluates one set of coins	M1	Accept incorrect or missing units
	Moves a different set of 3 coins from Eve to Ola and correctly evaluates both sets of coins	M1dep	Accept incorrect or missing units
	$\pounds 1, 20\text{p}$ and $2\text{p}$	A1	oe eg $\pounds 1.00, \pounds 0.20, \pounds 0.02$ Correct units must be given
	<b>Additional Guidance</b>		
	Answer of 1, 20, 2 with some or all units incorrect or missing	M1M1A0	
Do not accept eg $\pounds 0.20\text{p}$	A0		



<b>20</b>	<b>Alternative method 1</b>		
	$1350 \times 0.02$ or 27	M1	$1350 \times 1.02$ or 1377 implies M1M1dep
	$1350 +$ their 27 or 1377	M1dep	
	their $1377 \times 12$ or 16 524	M1	Monthly pay $\times 12$
	$47 \times 37.5$ or 1762.5	M1	May be seen as pay + 47 + 37.5
	9.37... or 9.38	A1	Allow 9.40 with method Accept eg £9.38p but not 9.4
	<b>Alternative method 2</b>		
	$1350 \times 12$ or 16 200	M1	Monthly pay $\times 12$
	their $16\ 200 \times 0.02$ or 324	M1dep	
	their $16\ 200 +$ their 324 or their $16\ 200 \times 1.02$ or 16 524	M1dep	dep on M1M1
	$47 \times 37.5$ or 1762.5	M1	May be seen as pay + 47 + 37.5
	9.37... or 9.38	A1	Allow 9.40 with method Accept eg £9.38p but not 9.4

**Alternative methods 3 and 4 and additional guidance continue on the next two pages**

<b>20 cont</b>	<b>Alternative method 3</b>		
	1350 × 12 or 16 200	M1	
	47 × 37.5 or 1762.5	M1	May be seen as pay + 47 ÷ 37.5
	their 16 200 ÷ their 1762.5 or 9.19... and their 9.19... × 0.02 or 0.18...	M1dep	Increase per hour dep on M1M1
	their 9.19... + their 0.18...	M1dep	dep on M1M1M1
	9.37... or 9.38	A1	Allow 9.40 with method Accept eg £9.38p but not 9.4
	<b>Alternative method 4</b>		
	47 × 37.5 or 1762.5	M1	
	their 1762.5 ÷ 12 or 146.87(5) or 146.88	M1dep	Hours per month
	1350 ÷ their 146.87(5) or 9.19... and their 9.19... × 0.02 or 0.18...	M1dep	Increase per hour
	their 9.19... + their 0.18...	M1dep	
	9.37... or 9.38	A1	Allow 9.40 with method Accept eg £9.38p but not 9.4

**Additional guidance continues on the next page**

<b>Additional Guidance</b>		
<b>20 cont</b>	Build up steps for 2% or 102% must be correct or have fully correct method shown for any incorrect steps eg1 1% = 135, 2% = 270, monthly pay = 1620 eg2 1% = 135, 2% = 2 × 135 = 270, monthly pay = 1620 eg3 1% = 1350 ÷ 10 = 135, 2% = 270, monthly pay = 1620	MOM0dep MOM0dep M1M1dep
	If correct methods or values are seen ignore choice of methods	
	27 or 16 200 or 1762.5	at least M1
	1377 or 324	at least M1M1
	16 524	at least M1M1M1
	1377 ÷ 4 = 344.25 344.25 ÷ 37.5 = 9.18 (unless other correct values seen elsewhere in working)	M1M1dep MOM0A0

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87.

<b>8</b>	<b>Alternative method 1</b>		
	15 × 8 or 120	M1	
	500 – their 120 or 380	M1dep	
	their 380 ÷ 30 or 12(...)	M1dep	oe builds up in 30s to at least their 380 – 30 or builds up in 30s from their 120 to at least 470 allow one error in any build up method
	their 12 × 30 or 360 or their 12 chosen from a build up	M1dep	oe their 12 must either come from rounding down their 12(...) or from choosing their 12 out of a build up or because they had an exact answer of their 12 from a correct method for the third mark
	their 380 – their 360 or 20 or 500 – (their 360 + their 120) or their 360 ÷ 8 + 8 (their correct number of 8s) or 376 or their 360 + their 120 ÷ 8 + 8 (their correct number of 8s) or 496	M1dep	their 20 must be 0 < their 20 < 30
17 pencils, 12 rulers	A1		

<b>8 cont</b>	<b>Alternative method 2</b>		
	$15 \times 0.08$ or $1.2(0)$	M1	
	$5 -$ their $1.2(0)$ or $3.8(0)$	M1dep	
	their $3.8(0) + (0).3(0)$ or $12(\dots)$	M1dep	oe builds up in $(0).3(0)$ s to at least their $3.8(0) - 30$ allow one error or builds up in $(0).3(0)$ s from their $1.2(0)$ to at least $4.7(0)$ allow one error
	their $12 \times 0.3(0)$ or $3.6(0)$ or their 12 chosen from a build up	M1dep	dep on previous mark their 12 must either come from rounding down their $12(\dots)$ or from choosing their 12 out of a build up or because they had an exact answer of their 12 from a correct method for the third mark
	their $3.8(0) -$ their $3.6(0)$ or $(0).2(0)$ or $5 -$ (their $3.6(0) +$ their $1.2(0)$ ) or their $3.6(0) + (0).08 + (0).08$ (their correct number of $(0).08$ s) or $3.76$ or their $3.6(0) +$ their $1.2(0) + (0).08 + (0).08$ (their correct number of $(0).08$ s) or $4.96$	M1dep	their 0.20 must be $0 < \text{their } 0.20 < 0.30$
	17 pencils, 12 rulers	A1	
	<b>Additional Guidance</b>		
	Do not allow mixed units in working unless recovered		
	For build-up, one arithmetic mistake counts as one error, even though more than one value may be affected eg, 30, 60, 90, 130, 160, 190, 220, 250, 280, 310, 340, 370 gets 3rd mark in alternative method 1 (error from 90 to 130, but 30 then added correctly throughout)		
If there is no change possible, or change is not considered after rulers are bought, it is maximum M4			
Example $15 \times 8 = 120$ $500 - 120 = 380$ $380 \div 30 = 12$ then 12 chosen as number of rulers but no further work (4 <sup>th</sup> mark awarded despite no "remainder" but 5 <sup>th</sup> mark has to consider change)		M1M1M1M1M0A0	

Example $15 \times 8 = 120$ $500 - 120 = 380$ $380 \div 30 = 9.2$ and 9 chosen as the number of rulers (no further work)	M1M1M1M1A0A0
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AQA Thursday 8 June 2017– Morning (Calculator) Foundation Tier

88.

<b>9</b>	<b>Balance (£)</b>				Must be in correct boxes B1 (£)84.09 or (£)940.30 or (£)84.09p <b>and</b> (£)940.30p or B1ft for their 84.09 + 856.21	
	212.48					
	(£)84.09					
	(£)940.30					
	<b>Additional Guidance</b>					
						<b>B2</b>
	<b>Date</b>	<b>Description</b>	<b>Credit (£)</b>	<b>Debit (£)</b>	<b>Balance (£)</b>	
	13/12/2016	Starting balance			212.48	
	14/12/2016	Council tax		128.39	84.09	
	15/12/2016	Salary	856.21		940.30	
340.87 and 1197.08					B1ft	
340.87 and 1197.08p					B0ft	
84.09 and 940.3					B1	
Ignore any working in grey boxes						
84.09p and 940.30p					B1	
£84.09p and £940.30p					B1	
84.09p and 940.3(p)					B0	

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

89.

<b>15</b>	720 ÷ 30 or 0.72 ÷ 0.03 or 24	M1	
	their 24 × 2	M1dep	
	48 and No	A1	

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

90.

<b>19</b>	345 – 96 or 249	M1	
	80 ÷ 10 × 3 or 24	M1	oe
	their 249 ÷ their 24 or their 24 × 10 or their 24 × 11	M1	Condone 345 ÷ 24
	11	A1	

**AQA Sample Paper 2– Morning (Calculator) Foundation Tier**

91.

<b>10</b>	<b>Alternative method 1</b>		
	$24 \times 48 \times 9.2$ or 10598.4(0)	M1	
	10598.4(0) and Yes	A1	
	<b>Alternative method 2</b>		
	$10\,000 \div 24 \div 48$ or 8.6(8...) or 8.7	M1	
	8.6(8...) or 8.7 and Yes	A1	
	<b>Alternative method 3</b>		
	$10\,000 \div 24 \div 9.2$ or 45.(...) or 46	M1	
	45.(...) or 46 and Yes	A1	
	<b>Alternative method 4</b>		
	$10\,000 \div 48 \div 9.2$ or 22.(...) or 23	M1	
	22.(...) or 23 and Yes	A1	

**AQA Sample Paper 2– Morning (Calculator) Foundation Tier**

92.

<b>13(a)</b>	$1000 \div 42$ or 23.8(...) or $23\frac{17}{21}$ or $\frac{500}{21}$	M1	
	23	A1	
<b>13(b)</b>	34	B1ft	ft their answer to (a)

**AQA Sample Paper 3– Morning (Calculator) Foundation Tier**

93.

<b>4</b>	$7500 - 1875$ or 5625	M1	
	their $5625 \div 36$	M1	
	156.25	A1	

