AREA AND PERIMETER

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

1.

13	34	M1 A1	for start to method, eg 10 – 4 (= 6) or 7 – 5 (= 2) **or** 10 + 7 + 4 + 5 (=26) **or** (10 + 7) × 2 cao	6, 2 may be seen on diagram

Pearson Edexcel - Tuesday 11 June 2019 - Paper 3 (Calculator) Foundation Tier

2.

16	32	P1 P1 A1	for a process to work out the missing length eg 6 – 4 (=2) **or** for a process to work out the length of the base eg 4 + 6 (= 10) **OR** for finding total perimeter of 2 rectangles, eg 2(6 + 4 + 6+ 4) (= 40) **OR** for writing at least 5 figures correctly on the diagram for a process to work out the perimeter eg 4 + "2" + 6 + 4 + 6 + 4 + 6 **or** 20 + 20 – 2 × 4 **or** 16 + 14 + "2" cao SC B1 for 30	May be seen on the diagram May be seen in different forms

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3.

13	(a)	36	P1 A1	square root of 81 eg $\sqrt{81}$ **or** 9 **or** 9 × 4 cao	9 could be seen on the diagram
	(b)	12	M1 M1 A1	finding area of triangle eg ½ (16 × 9) (=72) equating with area of parallelogram eg [area of triangle] × 5 = 30 × h **or** (h =) [area of triangle] × 5 ÷ 30 **or** (h =) [area of triangle] ÷ 30 **or** sight of 2.4 cao	[area of triangle] must be 72 or 144 or come from ½ (16 × 9) or 16 × 9

Pearson Edexcel - Tuesday 12 June 2018 - Paper 3 (Calculator) Foundation Tier

4.

21	Triangle of area 18	M1 A1	for a complete method to find area of trapezium eg $\frac{1}{2}(2 + 7) \times 4$ (= 18) **OR** for a triangle drawn of area 36 **OR** for a triangle that would give an area ft their area of trapezium for a triangle drawn of area 18 eg base = 6, height = 6 or base = 9, height = 4	The value for the area of the trapezium must be clear for the ft to be checked. Accept use of dimensions that are not whole numbers as long as the intention is clear

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

5.

8		4 × 8 rectangle drawn	M1 A1	Draws a rectangle with side lengths in the ratio 2:1 **or** lists possible dimensions in the ratio 2:1 **or** gives two numbers which multiply to 32 for correct diagram on grid

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

6.

10 (a)		12 cm²	B1 B1	for numerical answer of 12 for units shown as cm²
(b)		kite	B1	cao

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

7.

20	$16 \div 4$ $\frac{1\times4}{2}=2$ or $\frac{1}{2}\times\frac{1}{4}=\frac{1}{8}$ $\frac{2\times4}{2}=4$ or $\frac{1}{2}\times\frac{1}{2}=\frac{1}{4}$ $\frac{1\times4}{2}+\frac{2\times4}{2}=6$ or $\frac{1}{2}\times\frac{1}{4}+\frac{1}{2}\times\frac{1}{2}=\frac{3}{8}$ $16-6=10$ or $1-\frac{3}{8}=\frac{5}{8}$	$\frac{5}{8}$	P1 P1 P1 P1 A1	Using side lengths of 4 Method to find fraction or area for one unshaded triangle Method to complete fraction or area for total unshaded region Method to find total fraction or area for shaded region for $\frac{5}{8}$ oe or 0.625

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

8.

30		48	P1 P1 A1 B1	process to start solving problem, eg forms an appropriate equation complete process to isolate terms in x for $x = 6.5$ oe ft (dep P1) for correct perimeter for their x

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

9.

27		66.9	P1 P1 P1 A1	for process to find the area of one shape, eg. 19×16 (= 304) or $\pi \times 8^2$ (= 201.06...) for process to find the shaded area, eg. "304" – "201.06" ÷2 (= 203.46...) for a complete process to find required percentage, eg. $\frac{"203.46"}{304} \times 100$ for answer in range 66 to 68

10.

28		43.5	P1 P1 P1 P1 A1	for process to establish a right-angled triangle with two sides of 5 cm and 9 – 7 = 2 cm for correct application of Pythagoras, eg $5^2 + "2"^2$ for a complete process to find perimeter, eg. 9 + 7 + 5 + "5.39" (= 26.385...) for process to find area of square, eg $(26.385... \div 4)^2$ for answer in range 43.5 to 43.6

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

11.

16	(i) (ii) (iii)		3 options shown	C1 Diagram with decreased perimeter drawn C1 Diagram with same perimeter drawn C1 Diagram with increased perimeter drawn

OCR Thursday 05 November 2020- Morning (Non-Calculator) Foundation Tier

12.

16			$4x - 10 = 11 - 2x$ $4x + 2x = 11 + 10$	**M1** **M1**	or better	Alt method M1 for $(4x - 10)(11 - 2x) = 2(4x - 10) + 2(11 - 2x)$ or better M1 for $2x^2 - 15x + 28 = 0$
			$x = 3.5$	**A1**		
			[Dimension of square =] 4	**B1**	Correct or **FT** $4 \times$ *their* $x - 10$ or $11 - 2 \times$ *their* x	Dep on use of algebra Identifying 4 as the side of the square may be implied by later calculations
			One perimeter/area calculation correctly evaluated	**B1**	**FT** $4 \times$ *their* length of square or (*their* length)^2	B1FT Dep on previous B. Allow embedded solution
			Perimeter and area both shown to be 16	**A1**		Dep on all previous marks earned and that only x = 3.5 leads to perimeter = area

OCR November 09 November 2020- Morning (Calculator) Foundation Tier

13.

17			2.25 nfww	**5**	**B2** for 36 or **M1** for $\frac{9\times8}{2}$ AND **M2** for $\frac{1}{2}\times(12+20)\times h$ = *their* area of triangle oe or **M1** for $\frac{1}{2}\times(12+20)\times h$ oe	$8\times9=72$ then $72\div(20+12)=$ 2.25 is wrong working May be in stages Allow (*their* area of triangle) ÷ 16 or better e.g. 36 ÷ 16 or72 ÷ 32 for **M2** **M2** and **M1** may have area in stages e.g. $12h+\frac{8h}{2}$ (rectangle + one or two triangles) May be two trials approaching *their* area of triangle or one correct trial with 2.25 May be 16*h* or one trial with value for *h* substituted to attempt *their* area of triangle

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

14.

10			16 nfww	**5**	**M2** for 12 as area of triangle nfww or **M1** for $(6\times4)\div2$ AND **M1** for *their* 12×4. *Their* 12 must be from an attempt at the area of the triangle **M1** for *their* $48\div3$	 $48\div3\div2$ = **M0**

15.

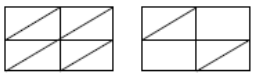
15			16.5	**4**	**B3** for 5.5 [cm] nfww or **M2** for $3x+x+3x+x=44$ or better or $44\div8$ oe or **M1** for $3x$ [as length] and x [as width] or $4x$ [as length + width] or $8x$ [as perimeter] OR Using trial length and width with length = 3 × width **M1** for a perimeter found **M1** for a second perimeter closer to 44 If 0 scored **SC1** for answer 33	 May be other letters or in words for 2 or 1 mark $3x$ and x may be on diagram

16.

17			2.25 nfww	5	**B2** for 36 or **M1** for $\frac{9\times 8}{2}$ AND **M2** for $\frac{1}{2}\times(12+20)\times h$ = *their* area of triangle oe or **M1** for $\frac{1}{2}\times(12+20)\times h$ oe	$8\times 9=72$ then $72\div(20+12)=2.25$ is wrong working May be in stages Allow (*their* area of triangle) ÷ 16 or better e.g. 36 ÷ 16 or72 ÷ 32 for **M2** **M2** and **M1** may have area in stages e.g. $12h+\frac{8h}{2}$ (rectangle + one or two triangles) May be two trials approaching *their* area of triangle or one correct trial with 2.25 May be $16h$ or one trial with value for h substituted to attempt *their* area of triangle

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

17.

13			75 cao nfww	4	**M1** for inventing a length and width and correct answer to *their* length × *their* width **M1** for correct area of one triangle **M1** for *their* rectangle area – 2 × *their* triangle area oe OR **M1** for subdividing shape into right triangles and/or rectangles **B2** for shaded area = $\frac{6}{8}$ oe of rectangle or **B1** for one triangle = $\frac{1}{8}$ oe or 12.5% of rectangle oe OR **M1** for recognising two triangles = rectangle **B2** for shaded area = $\frac{3}{4}$ or oe $\frac{6}{8}$ of rectangle or **M1** for two triangles = $\frac{1}{4}$ or $\frac{2}{8}$ oe or 25% of rectangle	May be algebraic "*x* by *y*" rectangle (Diagram is 11 cm by 5 cm) Accept equal length and width Or a trapezium = half shaded area May be 6 × one triangle or 2 × one trapezium e.g.  May be as 8 triangles make the rectangle May be as 8 triangles or 4 rectangles make the rectangle Example for 11 by 5 **M1** for $11\times 5=55$ **M1** for $5.5\times 2.5\div 2=6.875$ **M1** for $55-13.75=41.25$

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

18.

22			80 nfww	5	B3 for height [of $\bar{B}$ =] 10 OR **M2** for $3x^2$ = *their* (12 × 25) or better or **M1** for $3x \times x$ oe or 300 seen **A1** for $x = 10$ AND **M1** for (2 × *their* 10) + (2 × 3 × *their* 10) oe or for $2a + 2b$ where $ab = 300$ but not with 25 and 12	May be seen on diagram May be implied by arithmetic processing e.g. $\sqrt{\frac{\text{their } (12 \times 25)}{3}}$ or at least two trials of 3 × number × number intending 300 Allow *their* 10 if clearly intended as height e.g. "*h* =" or marked on diagram e.g. **M1M1** for 2 × 36 + 2 × 8.3[3…]

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

19.

5	**a**		10	**1**		
	b		1	**1**		

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

20.

16			$7x + 2$ final answer	4	**B2** for $28x + 8$ or **B1** for $28x + k$ or $jx + 8$ or **M1** for $5x + 3 + 7x + 4 + 9x - 10 + 5x + 8 + 2x + 3$ AND **M1** for *their* $(28x + 8) \div 4$ soi	$j \neq 0$ B1 not from only one side e.g. $5x + 8$ must be an algebraic expression in the form $ax + b$

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

21.

5	**a**		Rhombus	**1**		Accept any clear indication
	b		2	**1**		
	c		12	**2**	**M1** for $4 \times \frac{3 \times 2}{2}$ **oe soi**	Accept any full method for area eg ½ × 4 × 6

22.

15			[£]225[.00] nfww	6	B3 for 54 [tiles] OR **M1** 3 × 4.5 oe or 300 × 450 oe or 4.5 ÷ 0.5 or 450 ÷ 50 oe soi and **M1** 0.5 × 0.5 oe or 50 × 50 oe or 3 ÷ 0.5 or 300 ÷ 50 oe soi AND **M1** for *their* 6 × 20 **M1** for *their* 14 × 7.5	Could be on diagram Could be in diagram *their* 6 is correct number of packs for *their* number of tiles – must be positive integer, implied by 120 *their* 14 is *their* answer to (3 × 4.5) rounded up to next integer, implied by 105

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

23.

13	(a)	(i)	$6a + 10b$ or $2(3a + 5b)$ final answer	2	**M1** for $6(a + b) + 2 \times 2b$ oe If 0 scored **SC1** for 3a + 5b as final answer	**M1** for EG $a + b + a + b + a + b + a + b + a + b + a + b + 2b + 2b$ or $2 \times (3a + 3b + 2b)$ etc
		(ii)	$6b(a + b)$ final answer	2	**B1** for $6(ab + b^2)$ or $b(6a + 6b)$ or $3(2ab + 2b^2)$ or $3b(2a + 2b)$ or $2(3ab + 3b^2)$ or $2b(3a + 3b)$	
	(b)		4 by 1 rectangle with $4a + 4b$ and $2b$ or 2 by 2 rectangle with $2a + 2b$ and $4b$ or 1 by 4 rectangle with $a + b$ and $8b$ stated or marked on rectangle	5	**B4** for $4a + 4b$ and $2b$ or $2a + 2b$ and $4b$ or $a + b$ and $8b$ or **B3** for rectangle drawn as (4 by 1) or (2 by 2) or (1 by 4) or **B2** for one of $2a + 2b$ or $4a + 4b$ or $4b$ or $8b$ or **B1** for any rectangle of 3 or more tiles drawn with $a+b$ or $2b$ marked on individual tiles	Accept unsimplified throughout Once correct expression(s) seen, ignore incorrect simplification to answer line In answer space or intended as final length and width Must clearly be answer May be in attempt to factorise EG $4b(2a + b)$ Accept unsimplified EG $a+b + a+b$ Only tiles that form the perimeter needed

OCR Monday 6 November 2017– Morning (Calculator) Foundation Tier

24.

13			[length =] 15 [width =] 5	3	**M1** for perimeter PQRS = 16 or 2 × *their* length + 2 × *their* width = 40 **M1** for ratio length AB to BC oe = 3:1 soi or $\frac{40}{\textit{their}16}$ soi	Condone length = 5 width = 15 If answer line is blank accept 15 and 5 correctly placed on the diagram

OCR Thursday 25 May 2017 – Morning (Calculator) Foundation Tier

25.

21			214	**5**	**B4** for 214.2 or 214.24 to 214.26 OR **B1** for 60 marked or used as width of rectangle or distance from B to the corner AND **M2** for $\frac{1}{4}$ × π × 120 soi by 30π, 94.2 or 94.24 to 94.26 or **M1** for π × 120 soi by 376.8 to 377.1 or $\frac{1}{2}$ π × 120 soi by 188.4 to 188.6 AND **M1** for 2 × *their* 60 + *their* 30π AND **B1** for their final answer written to more than 3 figs correctly rounded to 3 s.f. to a max. of **4** marks	Accept 120 + 30 π for **B4** Allow e.g. r = 60 for **B1**

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26.

12	**a**		Valid reason	**1**	Such as 'to make it easier to work out the area'	**See Appendix B**

	b		19000 or 19200	**5**	**M2** for 150 × (180 + 220) ÷2 **soi** **Or** **M1** attempt at an area **And** **M1** attempt to convert *their area* to hectares **soi** **And** **M1** for 6400 × *their area*	Mark answer line first, award 5 for a correct answer. If incorrect, then award M marks for correct steps **seen** Area of trapezium 30000 Such as 180 x 150 or 220 x 150 Eg *their* area ÷ 10000 oe *Their area* in m^2 or hectares eg 180 x 150 x 6400 or 6400 x 30000 or eg 6400 x 3 For the final 2 marks their area may have come from an attempt at perimeter, volume, etc

OCR Tuesday 13 June 2017 – Morning (Calculator) Foundation Tier

27.

12			68.8	**3**	**M2** for 2 ×(12 + 15 + 7.4) OR **M1** for 15 — 5.8 — 6.3 soi 2.9 **M1** for 12 + 15 + 12 + 6.3 + 7.4 + *their* 2.9 + 7.4 + 5.8 oe	Accept any other complete and correct methods May be 15 – 12.1 If not 2.9 then *their* 2.9 must be seen on diagram in correct place or come from 15 — 5.8 — 6.3

OCR Sample Question Paper 2 – Morning/Afternoon (Non - Calculator) Foundation Tier

28.

6	**(a)**		40 (cm)	**2** 1 AO1.3a 1 AO3.1a	**M1** for 4 × *their* '$\sqrt{100}$'	
	(b)		Correct working leading to 4 cm	**4** 1 AO1.3b 2 AO2.2 1 AO2.4a	**B1** for area of triangle is 24 **B1** for *their* '24' × 3 **B1** for *their* '72' ÷ 18 or area of parallelogram = 18*h*	

OCR Sample Question Paper 2 – Morning/Afternoon (Non - Calculator) Foundation Tier

29.

19			$2a + 1$	**4** 1 AO1.3b 2 AO3.1b 1 AO3.2	**M1** for $a + 2 + 3a + 3 + 4a - 1$ **M1** for collecting terms **M1** for dividing *their* '$8a + 4$' by 4	

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

30.

Q	Answer	Mark	Comments
16(a)	**Alternative method 1**		
	9×2 or 18 or $(8-2) \times 4$ or 24	M1	oe
	$9 \times 2 + (8-2) \times 4$	M1dep	oe eg $(9-4) \times 2 + (8-2) \times 4 + 4 \times 2$
	42	A1	
	Alternative method 2		
	8×4 or 32 or $(9-4) \times 2$ or 10	M1	oe
	$8 \times 4 + (9-4) \times 2$	M1dep	oe eg $(9-4) \times 2 + (8-2) \times 4 + 4 \times 2$
	42	A1	
	Alternative method 3		
	9×8 or 72 or $(8-2) \times (9-4)$ or 30	M1	oe
	$9 \times 8 - (8-2) \times (9-4)$	M1dep	oe
	42	A1	
	Additional Guidance		
	A correct area seen but not used may score M1		
	$9 \times 2 = 18$, $8 \times 4 = 32$ and 18×32		M1M0
	$9 \times 2 \times 8 \times 4$		M0
	The 2nd M is for a complete method that would lead to an answer of 42 eg $9 \times 2 = 18$, $6 \times 4 = 24$, $18 + 24 = 42$, then $42 \div 2 = 21$		M1M0
	Beware eg $8 + 4 + 8 + 4 = 24$ which is M0 without a correct area seen		M0
	Ignore any units given with answer		

Q	Answer	Mark	Comments
16(b)	Valid criticism	B1	eg the formula is $\frac{1}{2} \times$ base $\times$ height or the answer is double the correct answer or he has forgotten the $\frac{1}{2}$ or it should be $\frac{1}{2} \times 12 \times 8$ or it should be 48
	Additional Guidance		
	He needs to halve 12 (which is 6, $6 \times 8 = 48$)		B1
	He hasn't halved the base		B1
	$0.5 \times 12 \times 8 = 48$		B1
	His method was to work out a rectangle (insufficient)		B0
	He should divide by half		B0
	He didn't use the area of a triangle formula		B0
	He should have timesed all the measurements and divided by 2		B0
	Ignore irrelevant statements alongside a correct statement eg1 he has forgotten to divide by 2, the base should be shorter eg2 should have divided by 2, he worked out the area of a rectangle		 B1 B1
	Two statements, one correct, one incorrect eg1 he has forgotten to divide by 2, it should be $14 \times 8 \div 2$ eg2 should have divided by 2, he worked out the area of a square eg3 forgot to halve the base, should have been $6 \times 8 = 49$		 B0 B0 B0

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

31.

18	0.5 × 10 × 12 or 60	M1	oe
	180 ÷ their 60	M1dep	
	3	A1	SC1 1.5 oe
	Additional Guidance		

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32.

1	24 cm	B1	
	Additional Guidance		

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33.

10	× 3	B1	
	Additional Guidance		

34.

25	$4x + 5 = 6x - 10$ or $4x + 5 = 10(x - 4)$ or $6x - 10 = 10(x - 4)$	M1	oe eg $4x + 5 + 6x - 10 = 2 \times 10(x - 4)$ condone $10x - 4$ for $10(x - 4)$
	$4x - 6x = -10 - 5$ or $-2x = -15$ or $4x - 10x = -40 - 5$ or $-6x = -45$ or $6x - 10x = -40 + 10$ or $-4x = -30$	M1dep	oe collection of terms eg $4x + 6x - 20x = -80 - 5 + 10$ or $-10x = -75$ condone $10x - 4$ for $10(x - 4)$ eg $4x - 10x = -4 - 5$ or $6x - 10x = -4 + 10$
	$(x =)$ 7.5	A1	oe may be implied by (side length =) 35 or (perimeter =) 105
	(6 × their 7.5 – 10) × 3 or (4 × their 7.5 + 5) × 3 or 10 × (their 7.5 – 4) × 3 or 35 × 3 or 6 × their 7.5 – 10 + 4 × their 7.5 + 5 + 10 × (their 7.5 – 4) or 20 × their 7.5 – 45 or 105	M1dep	oe dep on M1M1 condone $10x - 4$ for $10(x - 4)$ must show working if M1M1A0
	105 and Yes	A1	oe eg 1.05 and Yes
	Additional Guidance		
	$4x + 5 = 6x - 10 = 10(x - 4)$		M1
	Condone $10x - 4$ for $10(x - 4)$ for up to M3		

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

35.

13	**Alternative method 1**		
	15^2 or 225	M1	
	their 225 ÷ 9 or 25	M1dep	oe
	5	A1	
	Alternative method 2		
	$\sqrt{9}$ or 3 or $\sqrt{\frac{1}{9}}$ or $\frac{1}{3}$	M1	
	15 ÷ their 3 or 15 × their $\frac{1}{3}$	M1dep	oe
	5	A1	
	Alternative method 3		
	$\left(\frac{x}{15}\right)^2 = \frac{1}{9}$	M1	oe
	$(x^2 =) \frac{15^2}{9}$ or 25	M1dep	oe
	5	A1	
	Additional Guidance		
	$3x = 15$		M1M1
	$5^2 = 25$ without 5 on answer line		M1M1A0
	1 : 3 or 3 : 1		M1

AQA Thursday 24 May 2018 – Morning (Non-Calculator) Foundation Tier

36.

31	**Alternative method 1 – width of small rectangle is x (any letter)**		
	x and $2x$ or $x + 2x + x + 2x$ or $6x$	M1	oe
	$x + 2x + x + 2x = 15$ or $6x = 15$	M1dep	oe
	$(x =)$ 2.5	A1	from correct working or with 5 as the other dimension or with 7.5 as the length of the large rectangle
	25	A1ft	ft 10 × their 2.5 with M1M1 awarded
	Alternative method 2 – length of small rectangle is x (any letter)		
	x and $\frac{x}{2}$ or $x + \frac{x}{2} + x + \frac{x}{2}$ or $3x$	M1	oe
	$x + \frac{x}{2} + x + \frac{x}{2} = 15$ or $3x = 15$	M1dep	oe
	$(x =)$ 5	A1	from correct working or with 2.5 as the other dimension or with 7.5 as the length of the large rectangle
	25	A1ft	ft 5 × their 5 with M1M1 awarded
	Alternative method 3 – **a = width of small rectangle and b = length of small rectangle (any letters)**		
	$b = 2a$ or $10a$ or $5b$	M1	correct expression for perimeter of the large rectangle in one variable
	$6a = 15$ or $3b = 15$	M1dep	correct equation in one variable
	$(a =)$ 2.5 or $(b =)$ 5	A1	from correct working or with both values correct or with one value correct and 7.5 as the length of the large rectangle
	25	A1ft	ft 10 × their a or 5 × their b with M1M1 awarded

31(cont)	**Alternative method 4 – trial and improvement using ratio of sides**		
	length = 2 × width seen or implied	M1	
	Two correctly evaluated trials for perimeter of small rectangle with length = 2 × width	M1dep	eg 8 + 4 + 8 + 4 = 24 and 10 + 5 + 10 + 5 = 30
	2.5 and 5	A1	implied by 2.5 + 5 + 2.5 + 5 = 15
	25	A1	
	Additional Guidance		
	Note that there is no ft in method 4		
	In all methods, marks can be awarded for annotation of the diagram, with lengths clearly identified, or working inside or alongside the diagram eg 2.5 and 5 marked correctly as the dimensions of the small rectangle 2.5 marked as the width of the small rectangle and 7.5 marked as the length of the large rectangle		M1M1A1 M1M1A1
	If full marks not awarded, mark both the diagram and working then award the better mark		
	In alt 4, one or more trials may be crossed out to indicate that they do not give the correct perimeter. Do not treat this as the usual crossed out work not to be marked if replaced.		

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

37.

14	0.5 × 9 × 5.6	M1	oe
	25.2	A1	
	Additional Guidance		
	25 on answer line with 25.2 in working		M1A1
	25 on answer line with no or incorrect working		M0

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

38.

26(a)	$\frac{1}{2}(b + 2b)h$ or $3 \times \frac{1}{2}bh$	M1	oe
	1.5bh or $\frac{3}{2}bh$ or $\frac{3bh}{2}$ or $1\frac{1}{2}bh$	A1	accept hb for bh
	Additional Guidance		
	Correct expression with ×, ÷ or brackets		M1A0
	Condone units within expressions for M1 only		
	Condone the expression given within a formula eg $A = 1.5hb$		M1A1
	Condone correct expression stated and then equated to a value or with values substituted		M1A1

26(b)	$3b + 2s$ or $3b = 2s$ or $4s$	M1	oe
	$6b$	A1	oe eg $b + b + b + b + b + b$
	Additional Guidance		
	Condone the expression given within a formula eg $P = 6b$		M1A1

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39.

16	$2 \times \pi \times 37$ or $\pi \times 74$ or 8×37 or 296	M1	Accept [3.14, 3.142] for π
	[232, 233] or 74π	A1	May be implied by eg 74π + ...
	[528, 529] or $74\pi + 296$	A1	
	Additional Guidance		
	$360 - 37 \times 8$		M1A0A0
	37×8 or 296 seen and then eg halved or doubled		M1

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

40.

11	**Alternative method 1**		
	40 ÷ 4 or 10 or 30	M1	Accept evidence on diagram
	32 – their 10 or 22	M1dep	Accept evidence on diagram
	3 × their 10 + their 22	M1dep	dep on M2
	52	A1	
	Alternative method 2		
	40 ÷ 4 or 10 or 30	M1	Accept evidence on diagram
	2 × their 10 or 20	M1dep	
	32 + 40 – their 20	M1dep	dep on M2
	52	A1	
	Additional Guidance		
	The two top sides on the triangle given values adding to 22 can be accepted as evidence of 22		
	Beware of appearance of 20 for reasons that are not worth the second mark eg 10, 20, 30, 40		M1 earned at that point
	Beware - wrong working can lead to the appearance of 52 (after rounding)		

AQA Tuesday 13 June 2017 Morning– Morning (Calculator) Foundation Tier

41.

10	Rectangle: 4	B1	
	Triangle: 0.5 × ? × 16 = 24 or (2 ×) 24 ÷ 16 or (2 ×) 1.5 or 2 × 24 or 48	M1	oe
	3	A1	
	Additional Guidance		
	Ignore any units given		