-	/ >	-			1		1	D.	
1	(a)				sphere		1	B1	
	(b) (c)	_			12		1	B1 B1	cao
	<u>(c)</u>				10		1	DI	Total 3 marks
							<u> </u>		Total 5 marks
2	(a)	Ţ			3.0 - 3.2		1	B1	for in the range 3.0 – 3.2
	(b)			Pa	rallelograr	n	1	B1	allow trapezium
	(c)	_		10	2		1	B1	cao
	(d)			Con	rectly label	led	1	B1	Angle <i>DAB</i> or angle <i>DCB</i> or both labelled
-	(e)		$\frac{1}{2}(6+10)\times 4$				2	M1	for correct application of formula allow triangle method
			2		32			A1	cao
	•								Total 6 marks
3	(a)				cylinder		1	B1	
	(b)				6		1	B1	
	• • •	(ii)			8		1	B1	
	(c)		$20 \times 8 \times 11$				2	M1	,
					1760			A1	
<u>.</u>									Total 5 marks
							_		
4	(a)				pentagon		1	B1	6 02 07
	(b)			-	85 arallel side	~	1	B1 B1	for 83 – 87 No additional sides marked
	(c)			1	marked				
	(d)	1		No	with reaso	011	1	B1	No and, for example, $12 \div 4 = 3$
									but 5 ÷ 3 does not equal 3  Total 4 marks
				1			<u> </u>	1	10tai 7 mai Ks
5		(10 – 1	2) × 180 oe (= 1440) <b>or</b>			4	M1	for a n	nethod to find the sum of the interior
-			) × 180 oe (= 720)			ļ .	1.11		of a decagon or a hexagon
		'1440	' - 148 - 2×150 - 2×168 - 2×134 - 2×125 (=138	8) or			M1		omission of one angle
			' – 1302 (= 138) <b>or</b>						-
			$-148 \div 2 - 150 - 168 - 134 - 125 (= 69)$ or						
			-651 (= 69) '138' <b>or</b> 360 - 2 × '69'				M1		
	-	300 -	130 <b>01</b> 300 – 2 ^ 09		222		A1		
	-				222		411		
		Alteri	native method (exterior angles)						
		360 –	$2 \times (180 - 125) - 2 \times (180 - 134) - 2 \times (180 - 168)$	_		4	M2		M2 then award M1 for at least 3 or
			0 - 150) - (180 - 148)					(180 -	125), (180 – 134), (180 – 168),
		or 260	2×55 2×46 2×12 2×20 22						- 150), (180 – 148) <b>or</b>
		180 +	2×55 - 2×46 - 2×12 - 2×30 - 32 '42'				M1	at reas	t 3 of 55, 46, 12, 30, 32
		100 ⊤	72		222		A1		
	-								Total 4 marks
•								•	
6	a			I	Kite drawn		1	B1	
	b				Octagon		1	B1	
	ci				Cuboid		1	B1	
	cii				8		1	B1	
									Total 4 marks
		,							
7			8.5² + 5.6² (=103.61)				3	M1	
			$\sqrt{8.5^2 + 5.6^2}$					M1	
					10.2			A1	awrt 10.2
									Total 3 marks
					4		1	D1	or 'four'
O		(0)	The state of the s		<u>4</u> 54		1	B1 B1	or 'four' allow from 52 to 56 (inclusive)
8		(a) (b)(i)					1 1	ו ע	anon nom 22 to 20 (monsive)
8		(b)(i)			J-T				including decimals eg 52.5
8		(b)(i) (b)(ii)			Acute		1	B1	including decimals eg 52.5 allow incorrect spelling as long as meaning is clear
8		(b)(i)			Acute	17	1	B1	including decimals eg 52.5 allow incorrect spelling as long as meaning is clear allow rectangular based pyramid
8		(b)(i) (b)(ii)			Acute	d]			including decimals eg 52.5 allow incorrect spelling as long as meaning is clear allow rectangular based pyramid or 'pyramid'
8		(b)(i) (b)(ii)			Acute	i]			including decimals eg 52.5 allow incorrect spelling as long as meaning is clear allow rectangular based pyramid or 'pyramid' allow incorrect spelling as long as
8		(b)(i) (b)(ii) (c)(i)			Acute quare based Pyramid	1]	1	B1	including decimals eg 52.5 allow incorrect spelling as long as meaning is clear allow rectangular based pyramid or 'pyramid' allow incorrect spelling as long as meaning is clear
8		(b)(i) (b)(ii)			Acute	d]			including decimals eg 52.5 allow incorrect spelling as long as meaning is clear allow rectangular based pyramid or 'pyramid' allow incorrect spelling as long as

				-	D.1	
<b>9</b> a		Trapezium		1	B1	
b		42		1	B1	Accept 40 – 44
С		Correct lines mar	ked	1	B1	
d		2	-	1	Bl	
- u	+		-	1	DI	
						Total 4 marks
10 (a)		12	1	B1		
			1			
(b)		8	1	B1		
(c)	Two intersecting arcs with equal radius		2	M1	For ar	cs that intersect within guidelines or
						t equilateral triangle drawn without
					arcs	o equinateral analysis aranna maneta
		0 1 1		A 1	arcs	
		Correct equilateral		A1		
		triangle with arcs				
						Total 4 marks
	·					
11 (a)		Dantagan		1	B1	
11 (a)		Pentagon	,	1		11 21 1 1 1 1
(b)		acute angle clear		1	Bl	allow either angle or both acute angles
		indicated with 'A				indicated
(c)		reflex angle clear		1	B1	accept either the interior reflex angle,
		indicated with 'I	₹'			or any of the exterior reflex angles, if
						labelled outside of the shape with an
						arc
						Total 3 marks
	•					
44 (1)			-	-	D:	1' / 1 > 4 *
<b>12</b> (a)		1		1	B1	or one line (only) on the diagram
						clearly indicated
(b)		2		1	B1	
(c)		126		1	B1	allow ±2
						Total 3 marks
13 (a)		Parallelogram dra	wn	1	B1	,
(b)(i)		Pyramid		1	B1	accept square based pyramid or
						rectangular based pyramid
(ii)		5		1	B1	Allow five
()						
						Lofal 3 marks
						Total 3 marks
						1 otal 3 marks
14 (a)		Pentagon		1	B1	1 otal 3 marks
14 (a)		Pentagon		1	B1	1 otal 3 marks
		Pentagon		_		
15	(x + 3x + 8x = 360  oe)	Pentagon		1 4	Ml	M2 for $7x = 140$
15	$x = 360 \div 18 = 20$	Pentagon		_	M1 M1	M2 for $7x = 140$ (140 can be on diagram)
15	$x = 360 \div 18 = 20$ $60 \div (180 - 7 \times 20)$ oe or $360 \div (180 - 40)$	Pentagon		_	M1 M1	M2 for $7x = 140$
15	$x = 360 \div 18 = 20$ $60 \div (180 - 7 \times 20)$ oe or $360 \div (180 - 40)$	Pentagon		_	M1 M1	M2 for $7x = 140$ (140 can be on diagram)
15	$\begin{array}{l} x = 360 \div 18 \ (= 20) \\ 60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140") \\ (n - 2) \times 180 = 7 \times "20" \text{ oe or } 360 \div 40 \end{array}$	Pentagon		_	M1 M1	M2 for $7x = 140$ (140 can be on diagram)
15	$x = 360 \div 18 = 20$ $60 \div (180 - 7 \times 20)$ oe or $360 \div (180 - 40)$			_	M1 M1 M1 fo	M2 for $7x = 140$ (140 can be on diagram)
15	$\begin{array}{l} x = 360 \div 18 \ (= 20) \\ 60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140") \\ (n - 2) \times 180 = 7 \times "20" \text{ oe or } 360 \div 40 \end{array}$	Pentagon 9		_	M1 M1	M2 for $7x = 140$ (140 can be on diagram) or $360 \div$ exterior angle
15	$\begin{array}{l} x = 360 \div 18 \ (= 20) \\ 60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140") \\ (n - 2) \times 180 = 7 \times "20" \text{ oe or } 360 \div 40 \end{array}$			_	M1 M1 M1 fo	M2 for $7x = 140$ (140 can be on diagram)
15	$\begin{array}{l} x = 360 \div 18 \ (= 20) \\ 60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140") \\ (n - 2) \times 180 = 7 \times "20" \text{ oe or } 360 \div 40 \end{array}$			_	M1 M1 M1 fo	M2 for $7x = 140$ (140 can be on diagram) or $360 \div$ exterior angle
15	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	9		_	M1 M1 M1 fo	M2 for $7x = 140$ (140 can be on diagram) or $360 \div$ exterior angle
15	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$			4	M1 M1 M1 fo	M2 for $7x = 140$ (140 can be on diagram) at 360 ÷ exterior angle  Total 4 marks  accept E and C as order does not
15 (a)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9 C, E		4	M1 M1 for A1 B1	M2 for $7x = 140$ (140 can be on diagram)  or $360 \div$ exterior angle  Total 4 marks  accept E and C as order does not matter
15	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9		4	M1 M1 M1 fo	M2 for $7x = 140$ (140 can be on diagram)  or $360 \div$ exterior angle  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not
15   15   16   16   16   16   16   16	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9 C, E A, F		1	M1 M1 for A1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15 (a)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9 C, E		4	M1 M1 for A1 B1	M2 for $7x = 140$ (140 can be on diagram)  or $360 \div$ exterior angle  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not
15   15   16   16   16   16   16   16	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9 C, E A, F		1	M1 M1 for A1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15   15   16   16   16   16   16   16	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9 C, E A, F		1	M1 M1 for A1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15   15   16   16   16   16   16   16	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9 C, E A, F		1	M1 M1 for A1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15   15   16   16   16   16   16   16	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7\times"20" \text{ oe or } 360 \div 40$	9 C, E A, F		1	M1 M1 for A1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15 (a) (b) (c)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2)\times180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E A, F Correct line		1 1 1	M1 M1 fc A1 B1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15 (a) (b) (c) (d)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E A, F Correct line		1 1 1	M1 M1 fc A1 B1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15 (a) (b) (c)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E A, F Correct line		1 1 1	M1 M1 fc A1 B1 B1 B1	M2 for $7x = 140$ (140 can be on diagram) or $360 \div$ exterior angle  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines
15 (a) (b) (c) (d)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E A, F Correct line		1 1 1	M1 M1 fc A1 B1 B1 B1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter  accept F and A as order does not matter
15 (a) (b) (c) (d)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E A, F Correct line		1 1 1	M1 M1 fc A1 B1 B1 B1	M2 for $7x = 140$ (140 can be on diagram) or $360 \div$ exterior angle  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines
15   16   (a)   (b)   (c)   (d)   (e)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	9  C, E  A, F  Correct line		1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram) or $360 \div$ exterior angle  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines
15   16   (a)   (b)   (c)   (d)   (e)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E A, F Correct line	f	1 1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines
15   16   (a)   (b)   (c)   (d)   (e)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles Correct lines o		1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram) or $360 \div$ exterior angle  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines
15 (a) (b) (c) (d) (e) (b) (b)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles  Correct lines o symmetry draw		1 1 1 1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines
15   16   (a)   (b)   (c)   (d)   (e)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles Correct lines o		1 1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines  Total 5 marks
15 (a) (b) (c) (d) (e) (b) (b)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles  Correct lines o symmetry draw		1 1 1 1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines  Total 5 marks
15 (a) (b) (c) (d) (e) (b) (b)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles  Correct lines o symmetry draw		1 1 1 1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines
15 (d) (e) (c) (c)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles  Correct lines o symmetry draw 5		1 1 1 1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines  Total 5 marks  with no additional lines
15 (d) (e) (e) (e) (18 (a) (a) (b) (c)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles  Correct lines o symmetry draw 5  cylinder		1 1 1 1 1 1 1 1 1	M1   M1   M1   M1   fo	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines  Total 5 marks
15 (d) (e) (e) (e) (18 (a) (a) (b) (c)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles  Correct lines o symmetry draw 5		1 1 1 1 1 1 1 1	M1 M1 M1 for M1 for M1	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines  Total 5 marks  with no additional lines
15 (d) (e) (c) (c)	$\frac{x = 360 \div 18 (= 20)}{60 \div (180 - 7 \times "20") \text{ oe or } 360 \div (180 - "140")}$ $\frac{(n-2) \times 180}{n} = 7 \times "20" \text{ oe or } 360 \div 40$	C, E  A, F  Correct line  12  8  Isosceles  Correct lines o symmetry draw 5  cylinder		1 1 1 1 1 1 1 1 1	M1   M1   M1   M1   fo	M2 for $7x = 140$ (140 can be on diagram)  Total 4 marks  accept E and C as order does not matter accept F and A as order does not matter correct line with no other lines  Total 5 marks  with no additional lines

19	(i)	$360 - (92 + 44) (= 224)$ oe <b>or</b> $92 + 44 + x + x = 360$ oe $224 \div 2$ or		3	M1 M1
		2x = 224' oe			
			112		A1
	(ii)		Correct reason	1	B1 dep on M1 for a correct reason <u>Angles</u> in a <u>quadrilateral</u> sum to 360° (accept Angles in a <u>quadrilateral</u> sum to <u>360°</u> )
					Total 4 marks
20		$360 \div 8 (= 45) \text{ or } 360 \div 5 (= 72) \text{ or } 180 - (360 \div 8) (= 135) \text{ oe or } 180 - (360 \div 5) (= 108) \text{ oe}$ $`72' - `45' (= 27) \text{ or } `135' - `108' (= 27)$ $\frac{180 - '27'}{2} (= 76.5)$		4	M1 finding interior or exterior angle of octagon or pentagon Angles may be seen on diagram – but must be obtuse if interior and acute if exterior.  M1 (dep 1st M1) using a pair of interior or pair of exterior angles to find angle IBC Angle may be seen on diagram.  M1
		2	76.5		A1
			/0.5		Total 4 marks
		<u> </u>			1 otai 4 marks
21	(c)		the pair of parallel sides marked	1	B1 only 2 sides marked correctly
	(d)		pentagon	1	B1

<b>22</b> (a)	Trapezium	1	B1		
(b)	F	1	B1		
(c)	4	1	B1	or "four"	
(d)	2	1	B1	or "two"	
					Total 4 marks

22	2.00		4	3.61	1 1 6 1 1 1
23	$\frac{360}{10}$ (= 36) ext angle		4	M1	method to find interior or exterior angle.
					(angles may be seen on diagram)
	or $\frac{(10-2)\times 180}{10}$ (= 144)				
	or (= 144)				
	x = "144" - 90 (= 54)  or			M1	method to find $x$ (must show it is
	, , ,				intended to be $x$ )
	"540"-3×"144"				eg use of int angle – 90°
	$x = \frac{"540" - 3 \times "144"}{2}$ (=54) or				use of ext angle $+x = 90^{\circ}$
	x = 90 - 36'' (= 54)				use of pentagon GHIJA
	54 on the diagram is insufficient – must see				A11 C : 444 A C
	working				All figures in "" must come from correct
					working
	$BAD = CDA = GDE = DGF = \frac{360 - 2 \times "144"}{2} (= 36)$			M1	A correct method to find an angle of 36° within the shape (not exterior angle)
	2				or
					36° shown in correct place in diagram
	There are other correct methods.	x = 54		A1	dep on M3 to find each of $x$ and $y$ and the
	Please check for correct working.	v = 54		711	correct value of 54 for both from correct
	rease eneck for correct working.	y = 54			working
					Total 4 marks
ALT	<i>ADG</i> = "144" – 2 × "36" (= 72)			M1	
	JA is parallel to GD			M1	-
	DGA = DAG(y) [isosceles triangle]			M1	
	x = DGA = y	shown		A1	1
	There are other correct methods.				Total 4 marks
	Please check for correct working.				

<b>24</b> (a)		Prism	1	B1	Accept pentagon(al) prism
(b) (i)		7	1	B1	
(ii)		10	1	B1	
(c)	$\pm (70 - 8 \times 5)$ or $-30$ or		2	M1	Could be done in 2 parts
	70 - 5 - 5 - 5 - 5 - 5 - 5 - 5 oe				
	Correct answer scores full marks (unless from	30		A1	
	obvious incorrect working)				
					Total 5 marks

25 (a)	Octagon	1	B1
(b)	Acute	1	B1
(c)	Chord drawn	1	B1
(d)	360	1	B1
			Total 4 marks

26	(a)	Pentagon	1	В1	
	(b)	7.6	1	B1	accept 7.4 - 7.8
	(c)	T marked at interior angle E or exterior angle C	1	B1	must be the interior angle at <i>E</i> or exterior angle at <i>C</i> . Allow both angles to be marked but no others. Allow <i>t</i>
					Total 3 marks

<b>2</b> 7 (a)	8	1	B1 cao
(c)	2	1	B1 cao

28 (a) Octagon 1 B1
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