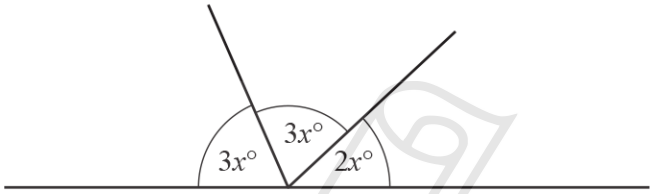
Chapter 5

Geometry

01. 0607_m23_qp_22 Q: 4

NOT TO SCALE



The diagram shows three angles on a straight line.

Find the value of x.

$x =$ ..... [2]

---

02. 0607_m23_qp_22 Q: 9

The size of one exterior angle of a regular polygon is 24°.

Find the number of sides of this polygon.

..... [2]

---

03. 0607_s23_qp_21 Q: 7

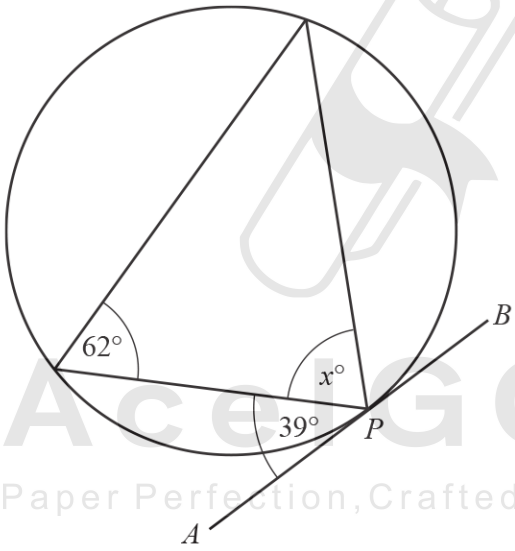
The interior angle of a regular polygon is 140°.

Find the number of sides of this polygon.

..... [3]

---

04. 0607_s23_qp_21 Q: 10



NOT TO SCALE

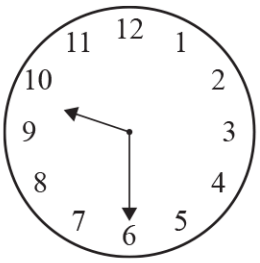
APB is a tangent to the circle at *P*.

Work out the value of *x*.

x = ... [2]

---

05. 0607_s23_qp_22 Q: 5



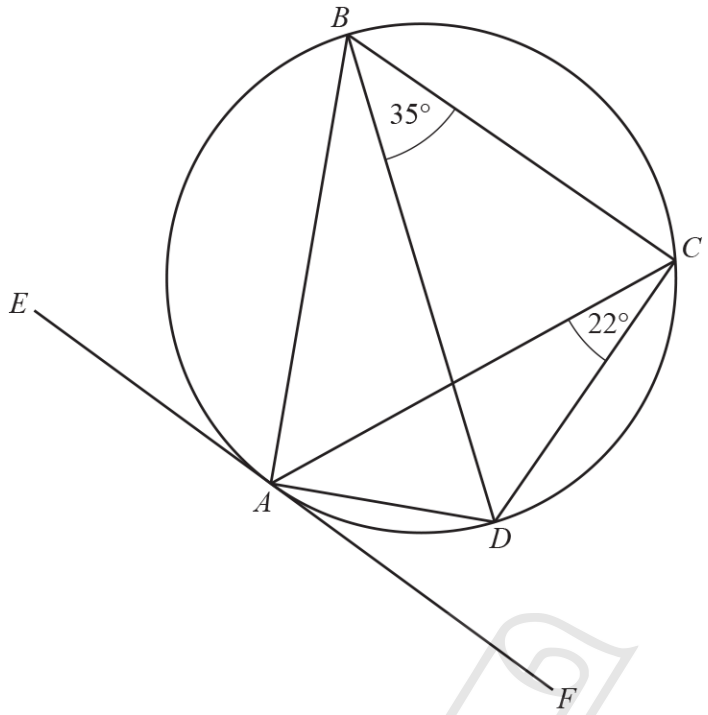
NOT TO SCALE

The clock shows the time 09 30.

Work out the obtuse angle between the hands of the clock.

..... [2]

06. 0607_s23_qp_22 Q: 12



NOT TO SCALE

A, B, C and D are points on the circle.
EF is a tangent to the circle at A.
Angle $DBC = 35°$ and angle $ACD = 22°$.

Find

(a) angle ABD

Angle ABD = ... [1]

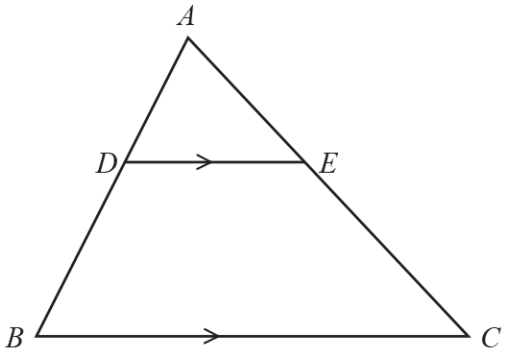
(b) angle ADC

Angle ADC = ... [1]

(c) angle CAF.

Angle CAF = ... [1]

07. 0607_s23_qp_22 Q: 16



NOT TO SCALE

ABC is a triangle.
DE is parallel to *BC*.

(a) Show that triangle *ADE* is similar to triangle *ABC*.

.....

.....

.....

.....

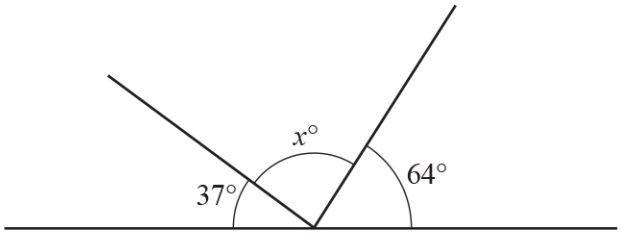
..... [2]

(b) $AD : DB = 2 : 3$.

Find the ratio Area of triangle *ADE* : Area of triangle *ABC*.

..... : ..... [1]

08. 0607_s23_qp_23 Q: 2



NOT TO SCALE

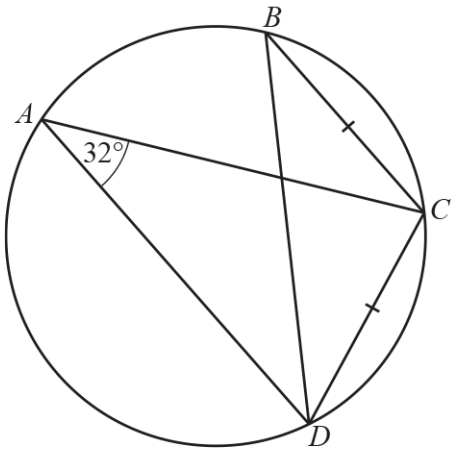
Find the value of x.

$x =$ ..... [1]

---

09. 0607_s22_qp_21 Q: 12

(a)



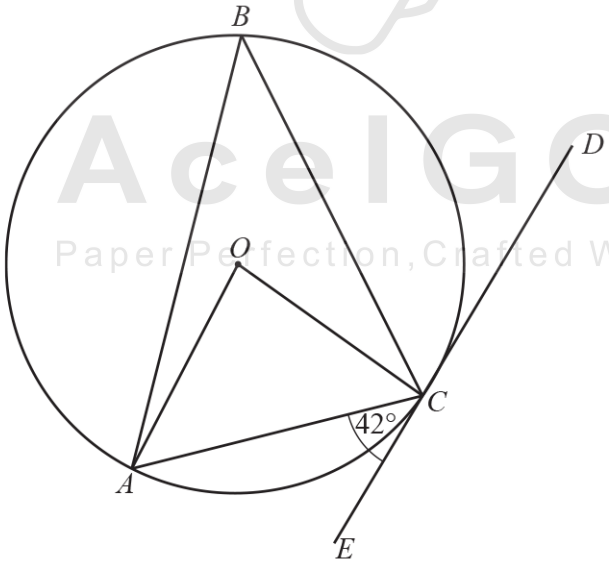
NOT TO SCALE

A, B, C, and D are points on a circle.
Angle $DAC = 32°$.
$BC = DC$.

Find angle BCD.

Angle BCD = ... [2]

(b)



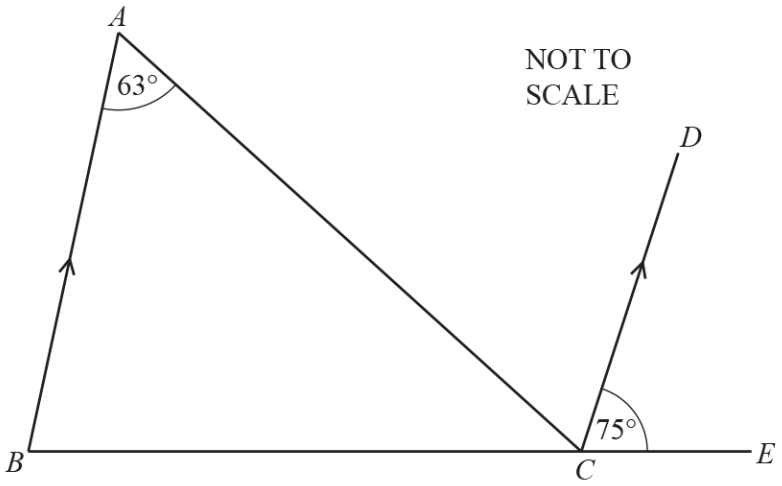
NOT TO SCALE

A, B and C are points on the circle centre O.
ECD is a tangent to the circle at C.
Angle $ACE = 42°$.

Find angle AOC.

Angle AOC = ... [2]

10. 0607_s22_qp_22 Q: 6



AB is parallel to *CD*.

Find angle *ACD*.

Angle *ACD* = ... [1]

---

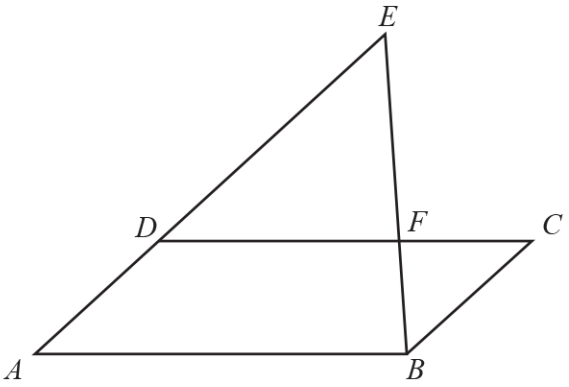
11. 0607_s22_qp_23 Q: 6

Find the exterior angle of a regular polygon with 15 sides.

..... [2]

---

12. 0607_s22_qp_23 Q: 9



NOT TO SCALE

ABCD is a parallelogram.
EDA and *EFB* are straight lines.

(a) Show that triangles *EDF* and *BCF* are similar.

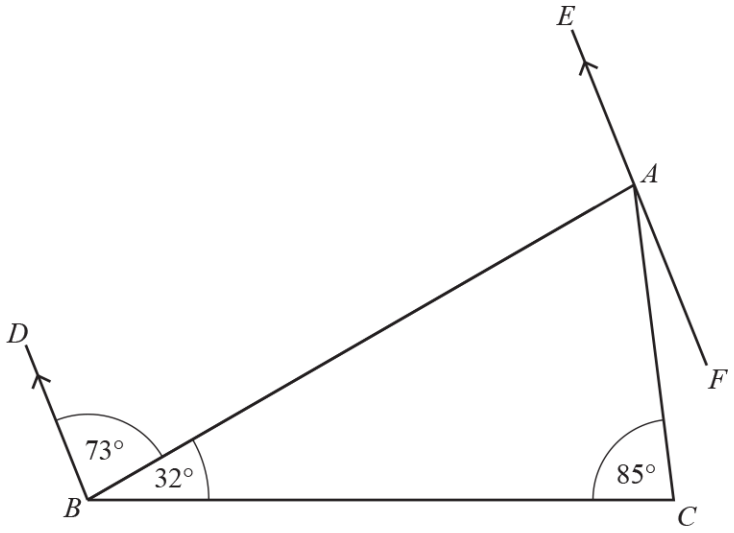
[2]

(b) $BC = 4$ cm, $DE = 5$ cm and $FB = 3$ cm.

Find *EF*.

EF = ... cm [2]

13. 0607_w22_qp_21 Q: 9



NOT TO SCALE

BD is parallel to *FAE*.

(a) Find angle *BAE*.

Angle *BAE* = ... [1]

(b) Find angle *FAC*.

Angle *FAC* = ... [2]

---

14. 0607_w22_qp_22 Q: 2

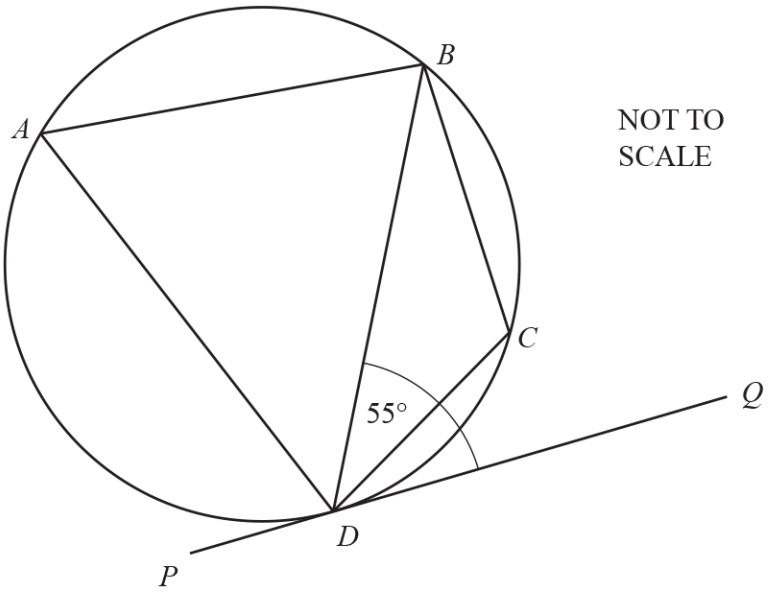
A regular polygon has 24 sides.

Find the size of each interior angle of the polygon.

..... [3]

---

15. 0607_w22_qp_22 Q: 13



A, B, C and D are points on the circle.
PQ is a tangent to the circle at D.
Angle $BDQ = 55°$.

Complete these statements giving a reason for each answer.

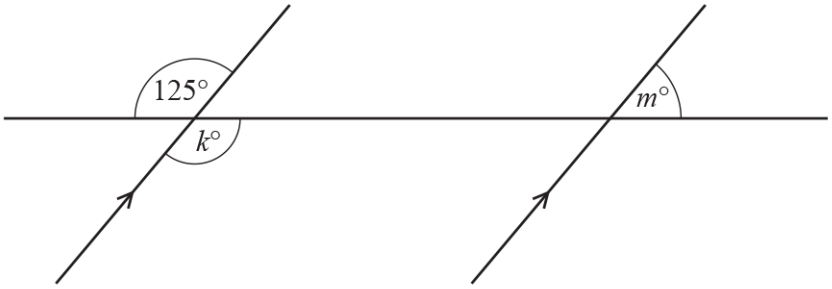
(a) Angle BAD = ... because .....

..... [2]

(b) Angle BCD = ... because .....

..... [2]

16. 0607_w22_qp_23 Q: 1



NOT TO SCALE

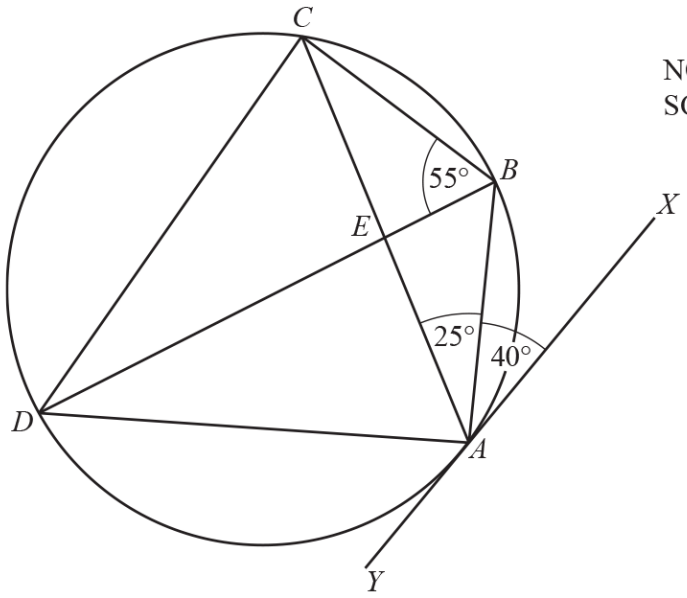
The diagram shows a straight line intersecting two parallel lines.

Find the value of k and the value of m.

$k =$ .....

$m =$ ..... [2]

17. 0607_w22_qp_23 Q: 11



A, B, C and D are four points on a circle.
AC and BD meet at E.
XAY is a tangent to the circle at A.

Find

(a) angle CDB,

Angle CDB = ... [1]

(b) angle ACB,

Angle ACB = ... [1]

(c) angle DCE,

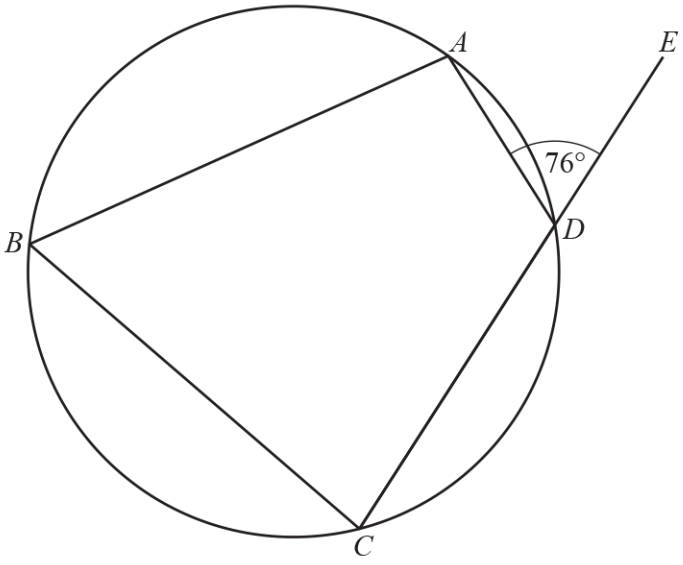
Angle DCE = ... [1]

(d) angle YAD.

Angle YAD = ... [1]

18. 0607_m21_qp_22 Q: 9

(a)



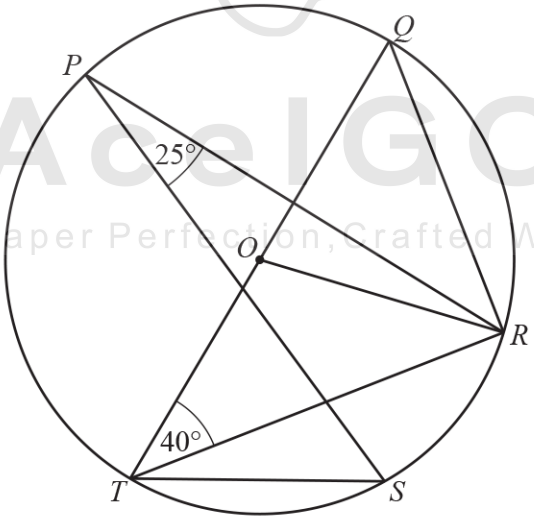
NOT TO SCALE

A, B, C, and D are points on a circle.
CDE is a straight line.

Find angle ABC .

Angle ABC = ... [1]

(b)



NOT TO SCALE

P, Q, R, S and T are points on the circle centre O.
TOQ is a straight line.

(i) Find angle STR.

Angle STR = ... [1]

(ii) Find angle QOR.

Angle QOR = ... [1]

19. 0607_s21_qp_21 Q: 6

A regular polygon has 30 sides.

Find the size of one exterior angle.

..... [2]

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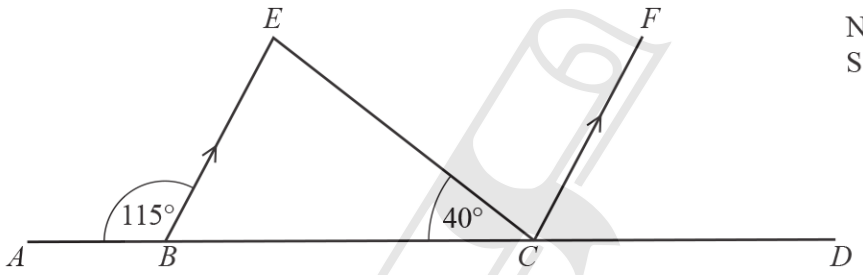
20. 0607_s21_qp_22 Q: 5



NOT TO SCALE

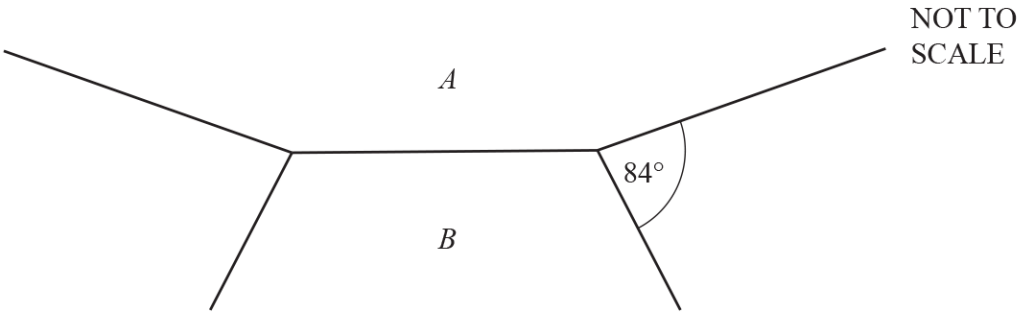
ABCD is a straight line and *BE* is parallel to *CF*.

Find angle *ECF*.

Angle *ECF* = ... [2]

---

21. 0607_s21_qp_22 Q: 9



The diagram shows part of polygon A and part of polygon B.
A is a regular polygon with n sides.
B is a regular hexagon.

Find the value of n.

$n =$ ..... [3]

---

22. 0607_s21_qp_23 Q: 4

A quadrilateral has all sides equal and exactly two lines of symmetry.

Write down the mathematical name of this quadrilateral.

..... [1]

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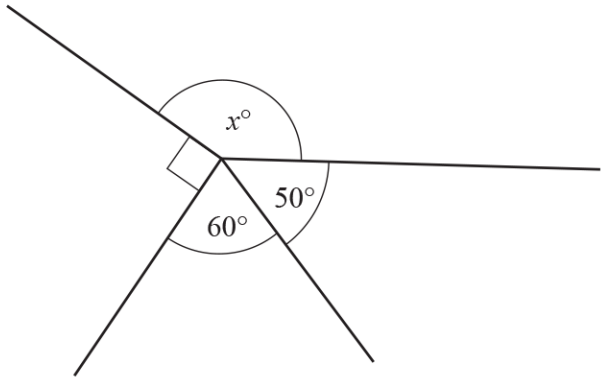
23. 0607_s21_qp_23 Q: 5

NOT TO SCALE



Find the value of x.

$x =$ ..... [1]

---

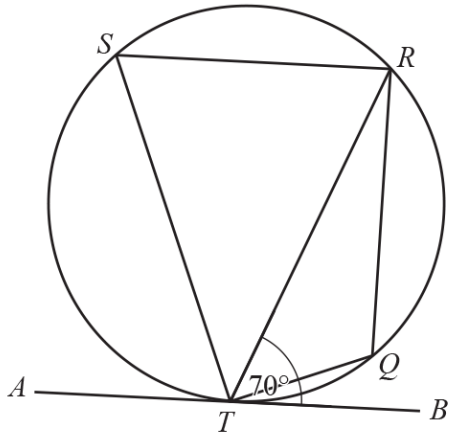
24. 0607_s21_qp_23 Q: 7

Find the size of one interior angle of a regular polygon with 20 sides.

..... [3]

---

25. 0607_s21_qp_23 Q: 15



NOT TO SCALE

Points Q, R, S and T lie on the circle.
AB is a tangent to the circle at T.
Angle $RTB = 70°$.

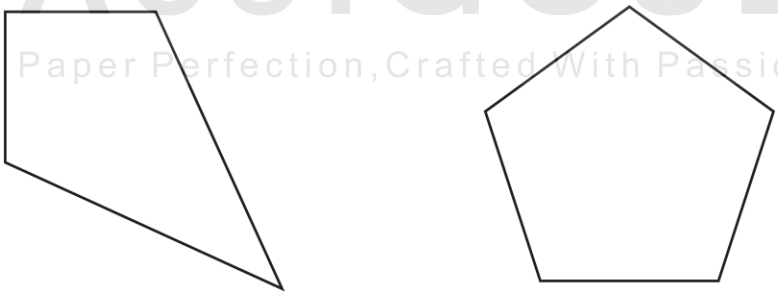
Find angle RQT.

Angle RQT = ... [2]

---

26. 0607_w21_qp_21 Q: 3

Draw **all** the lines of symmetry on each of these shapes.



[2]

---

27. 0607_w21_qp_22 Q: 2

Complete the statement.

A parallelogram has rotational symmetry of order .....

and ..... lines of symmetry. [2]

---

28. 0607_w21_qp_22 Q: 7

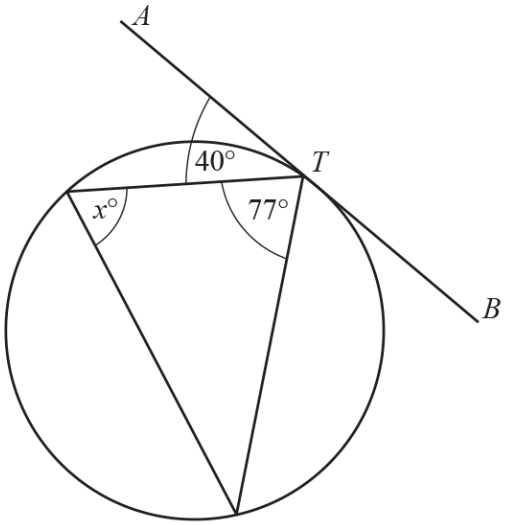
The bearing of P from Q is 110°.

Find the bearing of Q from P.

..... [2]

---

29. 0607_w21_qp_22 Q: 13



NOT TO SCALE

AB is a tangent to the circle at T.

Find the value of x.

$x =$ ..... [2]

30. 0607_w21_qp_23 Q: 8

(a) A regular polygon has 12 sides.

Work out the sum of the interior angles of the polygon.

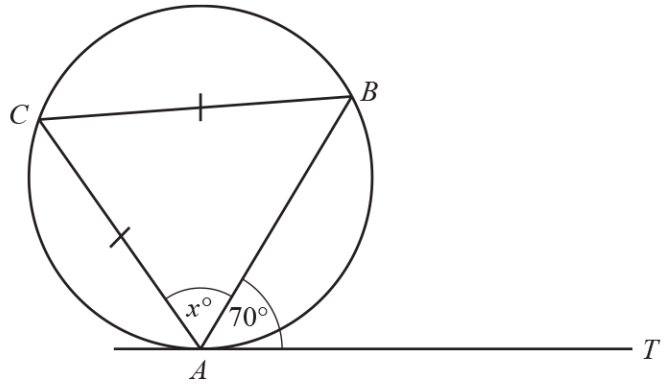
..... [2]

(b) The interior angle of a regular polygon is $x°$.

Find an expression, in terms of x, for the number of sides of this polygon.

..... [2]

31. 0607_s20_qp_21 Q: 9



NOT TO SCALE

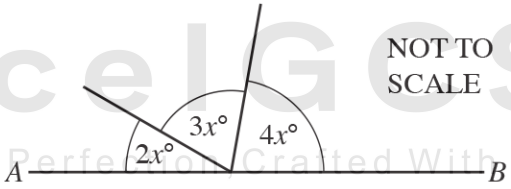
A, B and C are points on a circle.
TA is a tangent to the circle at A.
$CA = CB$ and angle $BAT = 70°$.

Work out the value of x.

$x =$ ..... [2]

---

32. 0607_s20_qp_22 Q: 6



NOT TO SCALE

AB is a straight line.

Find the value of x.

$x =$ ..... [2]

---

33. 0607_s20_qp_22 Q: 9

The interior angle of a regular polygon is 150°.

Find the number of sides of this polygon.

..... [3]

---

34. 0607_s20_qp_23 Q: 4

(a) Write down the mathematical name of the quadrilateral that has rotational symmetry of order 2 but no lines of symmetry.

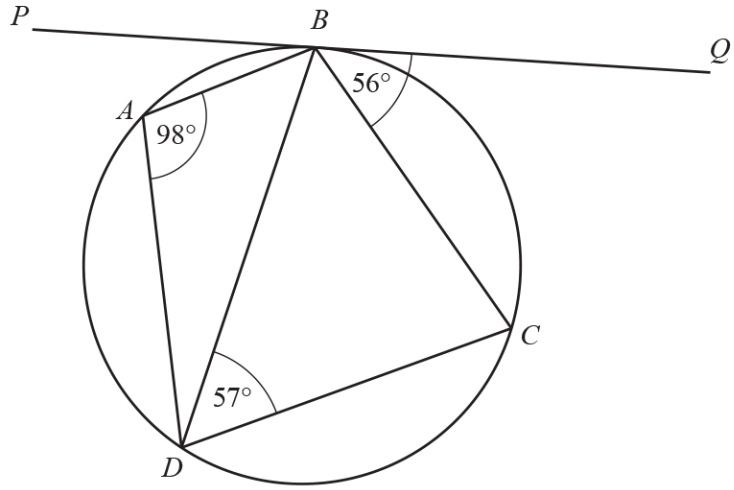
..... [1]

(b) Write down the mathematical name of the quadrilateral that has exactly one line of symmetry.

..... [1]

---

35. 0607_s20_qp_23 Q: 9



NOT TO SCALE

A, B, C and D are points on the circle.
PBQ is a straight line.

(a) Find angle DCB, giving a reason for your answer.

Angle DCB = ... because .....

..... [2]

(b) Is PBQ a tangent to the circle?
Give a reason for your answer.

..... because .....

..... [1]

---

36. 0607_w20_qp_22 Q: 1

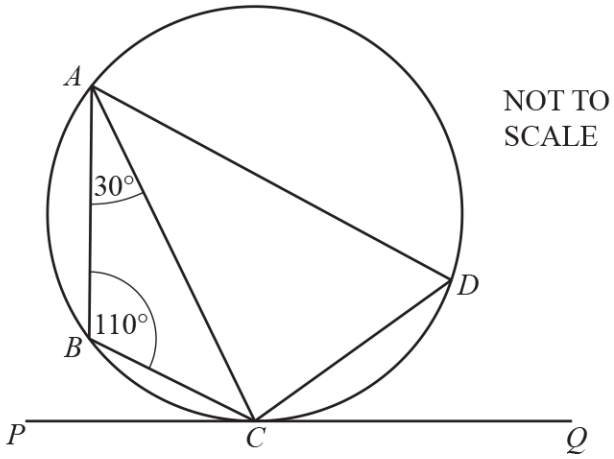
A quadrilateral has rotational symmetry of order two, two lines of symmetry and its angles are **not** right angles.

What is the special name of this quadrilateral?

..... [1]

---

37. 0607_w20_qp_22 Q: 12



The points A, B, C and D lie on a circle.
PCQ is a tangent to the circle at C.
Angle $ABC = 110°$ and angle $BAC = 30°$.

Find

(a) angle ADC,

Angle ADC = ... [1]

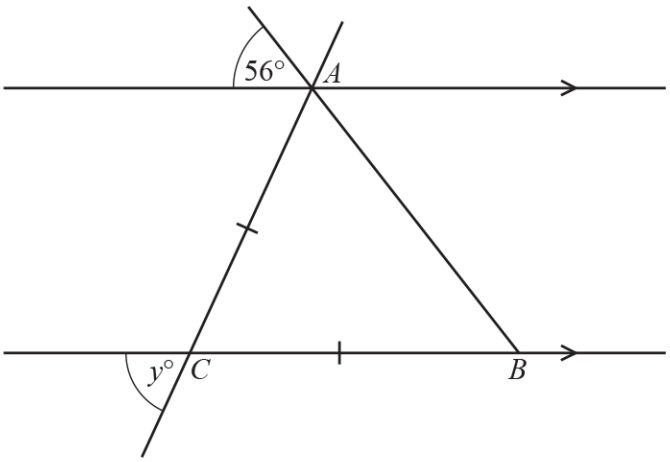
(b) angle ACP,

Angle ACP = ... [1]

(c) angle PCB.

Angle PCB = ... [1]

38. 0607_w20_qp_23 Q: 12



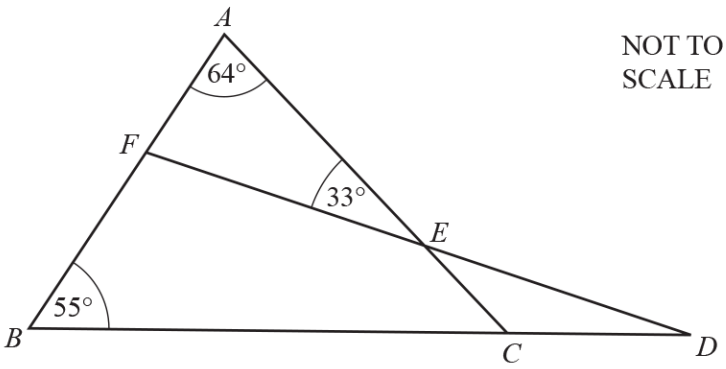
NOT TO SCALE

In the diagram, A, B and C are points on parallel lines.
$AC = BC$.

Work out the value of y.

$y =$ ..... [3]

39. 0607_s19_qp_21 Q: 3



NOT TO SCALE

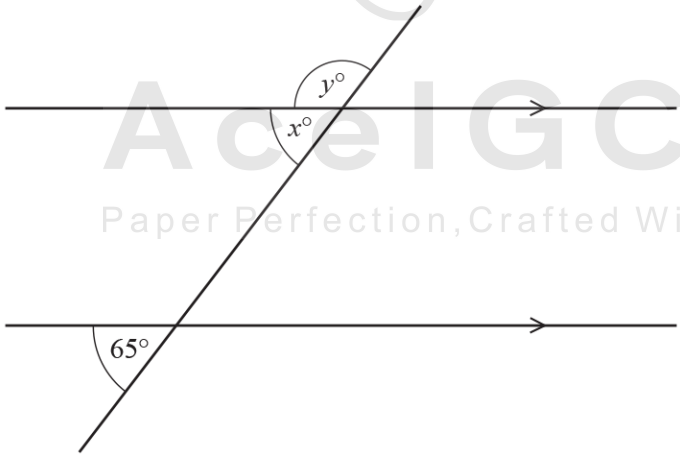
ABC is a triangle.
FED and *BCD* are straight lines.

Work out angle *EDC*.

Angle *EDC* = ... [2]

---

40. 0607_s19_qp_22 Q: 1



NOT TO SCALE

Find the value of x and the value of y.

x = ...

y = ... [2]

---

41. 0607_s19_qp_22 Q: 2

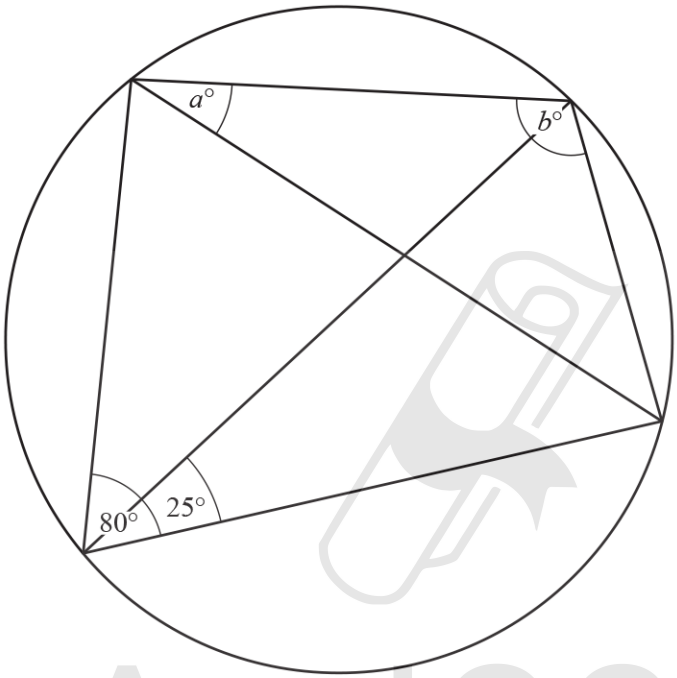
A regular polygon has 40 sides.

Find the size of one exterior angle.

..... [2]

---

42. 0607_s19_qp_22 Q: 15



NOT TO SCALE

The diagram shows a cyclic quadrilateral.

Find the value of a and the value of b.

$a =$ .....

$b =$ ..... [2]

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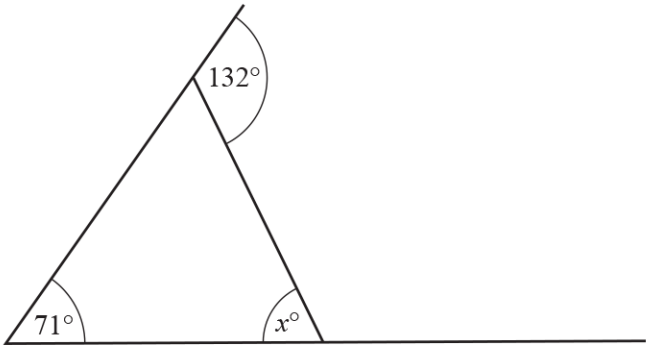
43. 0607_s19_qp_23 Q: 3



NOT TO SCALE

Find the value of x.

$x =$ ..... [2]

---

44. 0607_s19_qp_23 Q: 5

A quadrilateral has

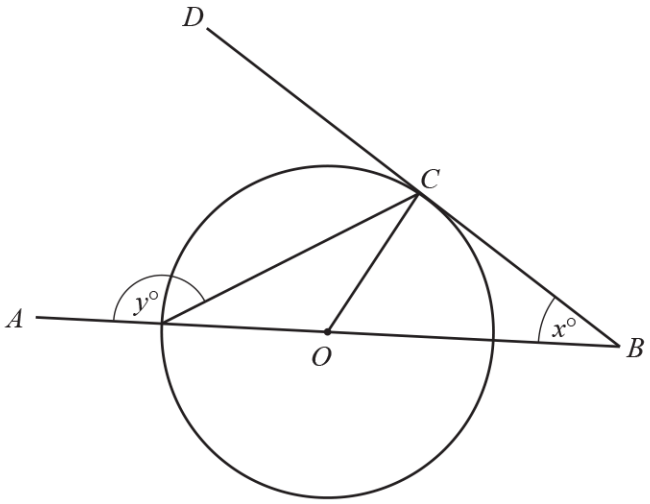
- two pairs of parallel sides
- all sides the same length
- no right angles.

Write down the mathematical name of this quadrilateral.

..... [1]

---

45. 0607_s19_qp_23 Q: 16



NOT TO SCALE

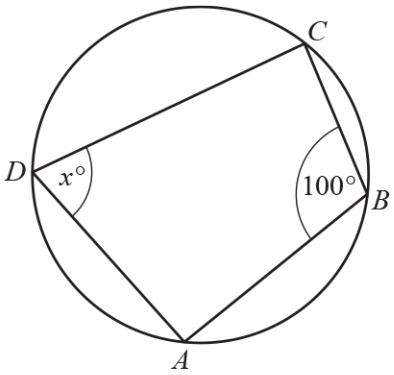
The diagram shows a circle, centre O.
AOB is a straight line.
BCD is a tangent to the circle at C.

Find y in terms of x.

$y =$ ..... [3]

46. 0607_w19_qp_21 Q: 12

(a)



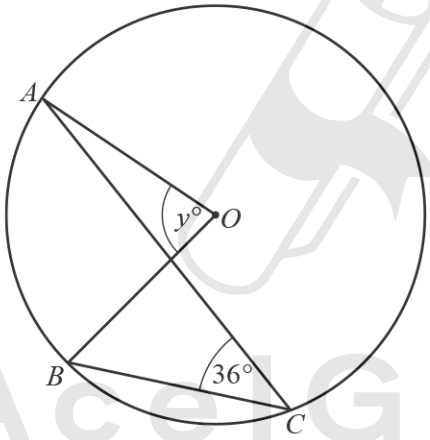
NOT TO SCALE

The points A, B, C and D lie on the circle.

Find the value of x.

$x =$ ..... [1]

(b)



NOT TO SCALE

The points A, B and C lie on the circle, centre O.

Find the value of y.

$y =$ ..... [1]

47. 0607_w19_qp_22 Q: 4

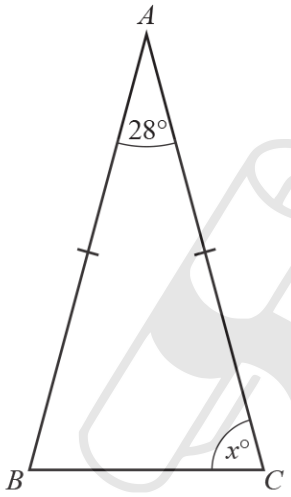
Each interior angle of a regular polygon is 170°.

Find the number of sides of this polygon.

..... [3]

---

48. 0607_w19_qp_22 Q: 6



NOT TO SCALE

$AB = AC$

Find the value of x.

$x =$ ..... [2]

---

49. 0607_w19_qp_22 Q: 7

The lengths of the sides of a right-angled triangle are 6 cm, 8 cm and 10 cm.

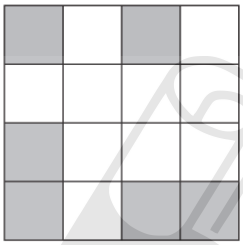
Find the tangent of the smallest angle.

..... [1]

---

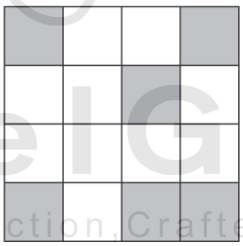
50. 0607_w19_qp_23 Q: 3

(a) Shade **two** squares so that this shape has exactly one line of symmetry.



[1]

(b) Shade **two** squares so that this shape has rotational symmetry of order 2.



[1]

---

51. 0607_w19_qp_23 Q: 6

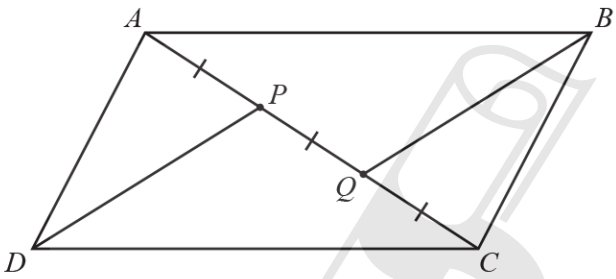
Triangle ABC is isosceles and angle $A = 40°$.

Find the three possible values for angle B.

..... , ... , ... [2]

---

52. 0607_w19_qp_23 Q: 13



NOT TO SCALE

$ABCD$ is a parallelogram.
$AP = PQ = QC$.

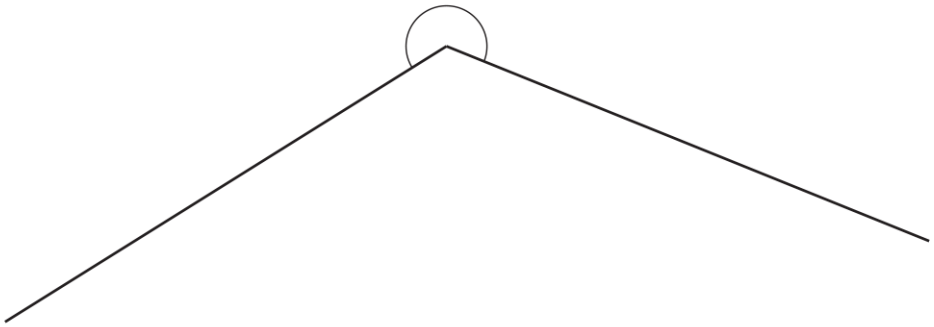
Show that triangles BQC and DPA are congruent.

Statement	Reason
.....	.....
.....	.....
.....	.....
.....	..... [3]

---

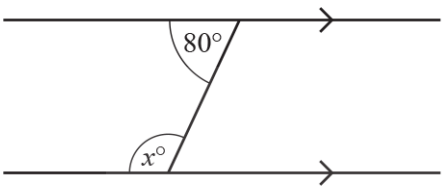
53. 0607_s18_qp_21 Q: 2

(a) Find, by measuring, the size of this reflex angle.



..... [1]

(b)



NOT TO SCALE

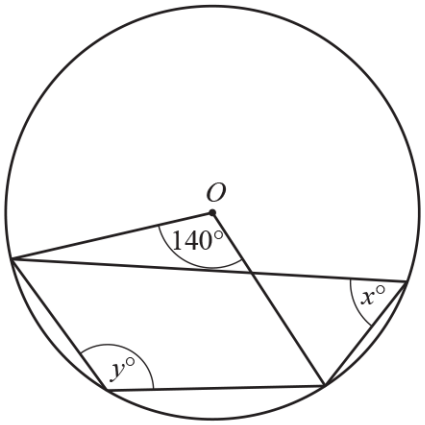
Work out the value of x.

$x =$ ..... [1]

(c) Find the size of one exterior angle of a regular 18-sided polygon.

..... [2]

54. 0607_s18_qp_21 Q: 7



NOT TO SCALE

O is the centre of the circle.

Find the value of x and the value of y.

$x =$ .....

$y =$ ..... [2]

---

55. 0607_s18_qp_22 Q: 1

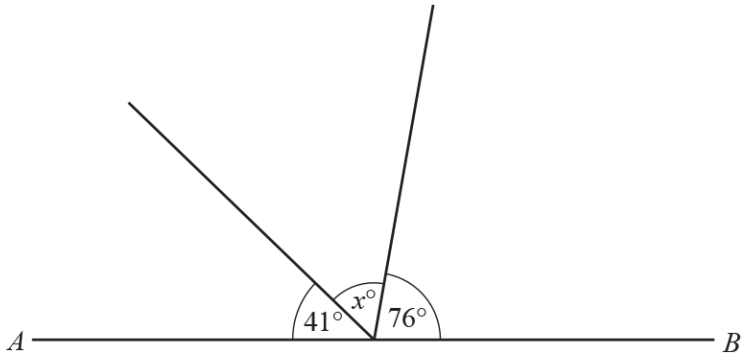
A quadrilateral has exactly one pair of parallel sides.

Write down the mathematical name for this quadrilateral.

..... [1]

---

56. 0607_s18_qp_22 Q: 2



NOT TO SCALE

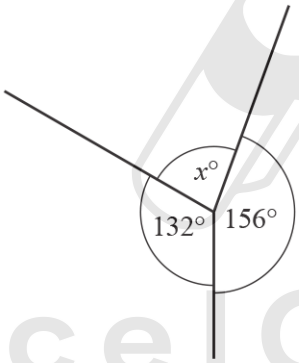
AB is a straight line.

Find the value of *x*.

x = ... [1]

---

57. 0607_w18_qp_21 Q: 2



NOT TO SCALE

Find the value of *x*.

x = ... [1]

---

58. 0607_w18_qp_21 Q: 7

Find the size of one exterior angle of a regular octagon.

..... [2]

---

59. 0607_w18_qp_21 Q: 13

The bearing of point B from point A is 234°.

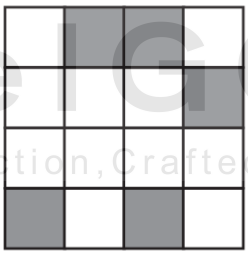
Work out the bearing of point A from point B.

..... [2]

---

60. 0607_w18_qp_22 Q: 3

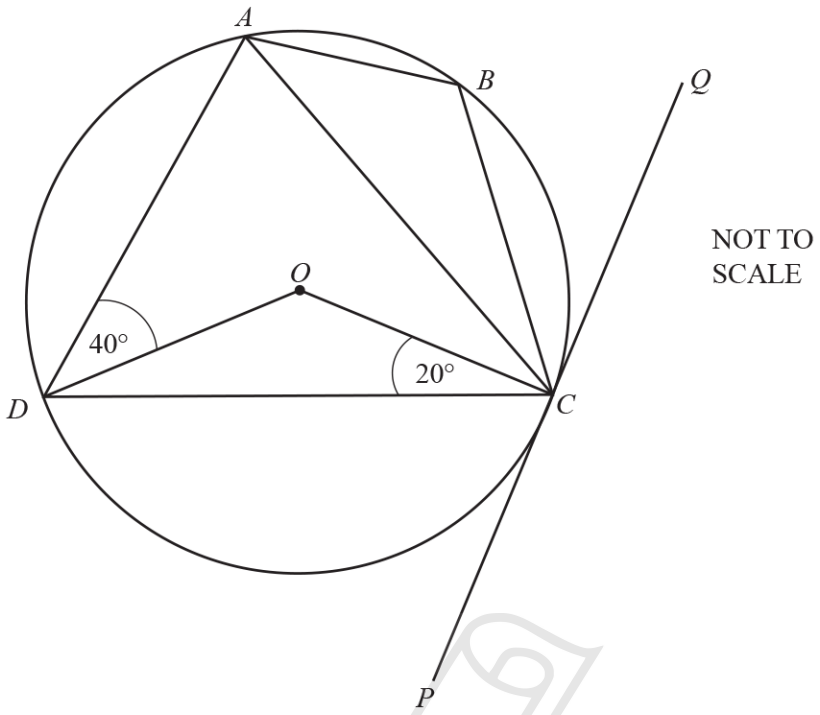
Shade **two** small squares so that the shape has exactly one line of symmetry.



[1]

---

61. 0607_w18_qp_22 Q: 12



A, B, C and D are points on the circle centre O.
PQ is a tangent to the circle at C.

Find these angles.

(a) Angle DAC

Angle DAC = ... [2]

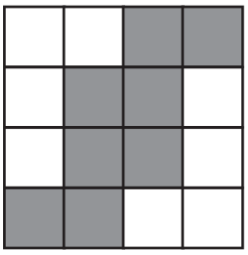
(b) Angle ABC

Angle ABC = ... [1]

(c) Angle ACQ

Angle ACQ = ... [2]

62. 0607_w18_qp_23 Q: 9



For the diagram, write down

(a) the number of lines of symmetry,

..... [1]

(b) the order of rotational symmetry.

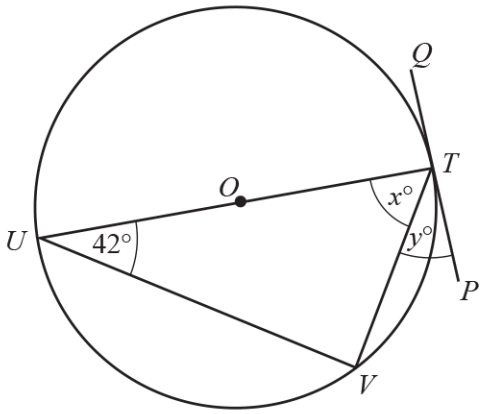
..... [1]

63. 0607_w18_qp_23 Q: 11

(a)

T, U and V lie on a circle, centre O.
PQ is a tangent to the circle at T.
TU is a diameter.

Find the value of x and the value of y.



NOT TO SCALE

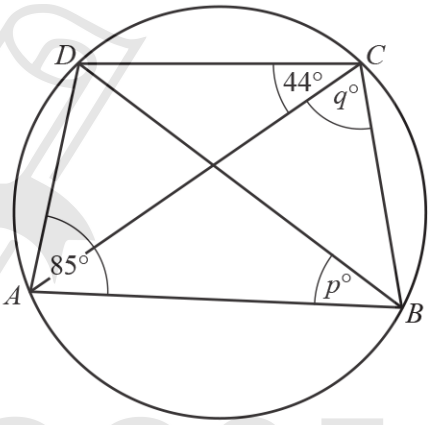
$x =$ .....

$y =$ ..... [2]

(b)

$ABCD$ is a cyclic quadrilateral.

Find the value of p and the value of q.



NOT TO SCALE

$p =$ .....

$q =$ ..... [2]

---

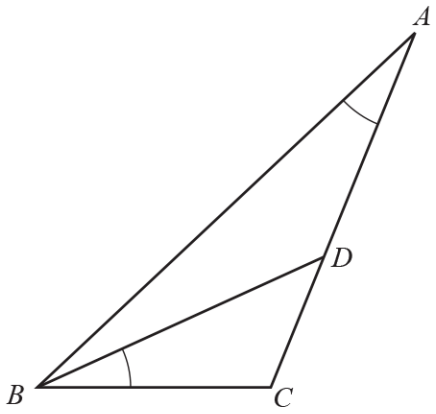
64. 0607_s17_qp_22 Q: 4

Complete this statement for the parallelogram shown.

This shape has ..... lines of symmetry and rotational symmetry of order ..... . [2]

---

65. 0607_s17_qp_22 Q: 8



NOT TO SCALE

ADC is a straight line and angle BAC = angle DBC.

(a) Complete the following statement.

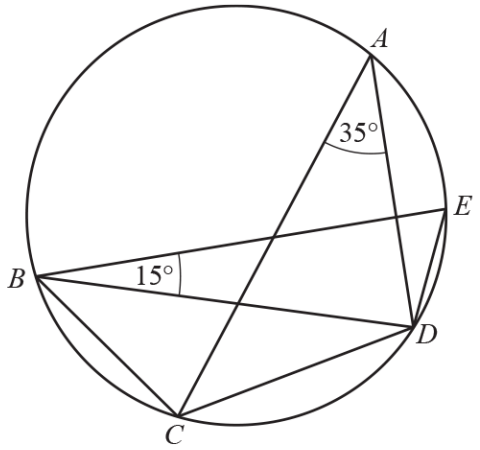
Triangle ACB is similar to triangle ..... . [1]

(b) $BC = 6\,\text{cm}$ and $CD = 4\,\text{cm}$.

Calculate the length AC.

$AC =$ ..... cm [2]

66. 0607_s17_qp_22 Q: 12



NOT TO SCALE

A, B, C, D and E are points on the circle.
Angle $CAD = 35°$ and angle $EBD = 15°$.

Find

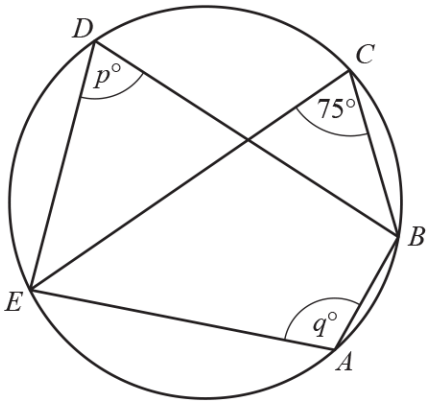
(a) angle CBD,

Angle CBD = ... [1]

(b) angle CDE.

Angle CDE = ... [1]

67. 0607_s17_qp_23 Q: 9



NOT TO SCALE

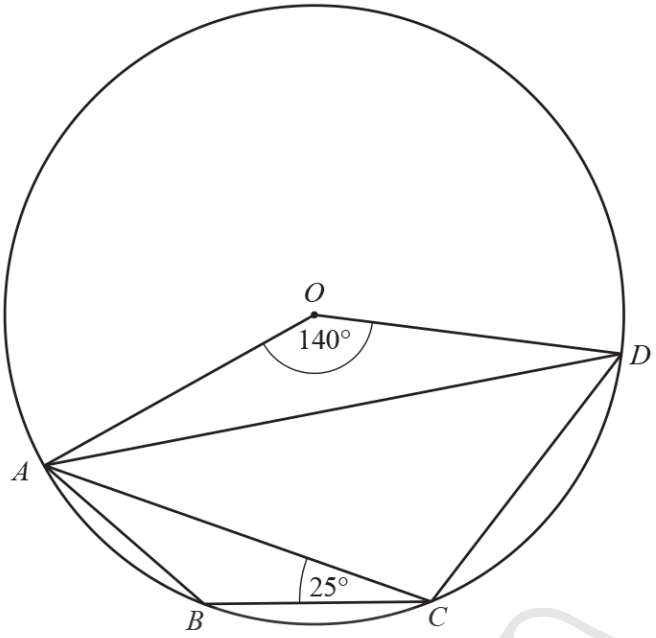
A, B, C, D and E lie on the circle.
Angle $BCE = 75°$.

Find the value of p and the value of q.

$p =$ .....

$q =$ ..... [2]

68. 0607_w17_qp_21 Q: 9



NOT TO SCALE

A, B, C and D are points on a circle centre O.

Find

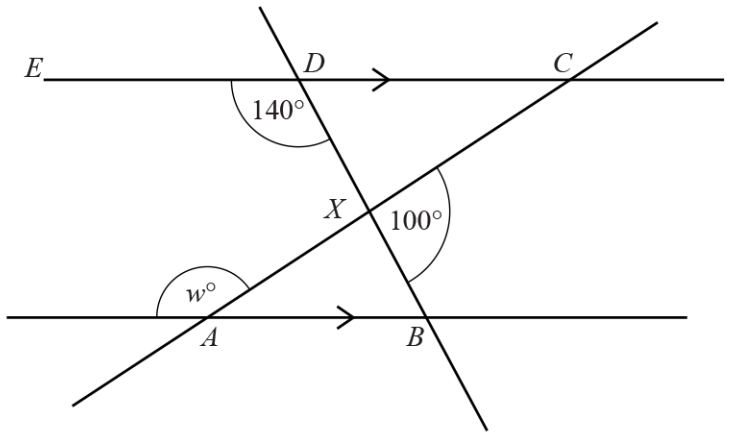
(a) angle ACD,

Angle ACD = ... [2]

(b) angle BAD.

Angle BAD = ... [2]

69. 0607_w17_qp_22 Q: 1



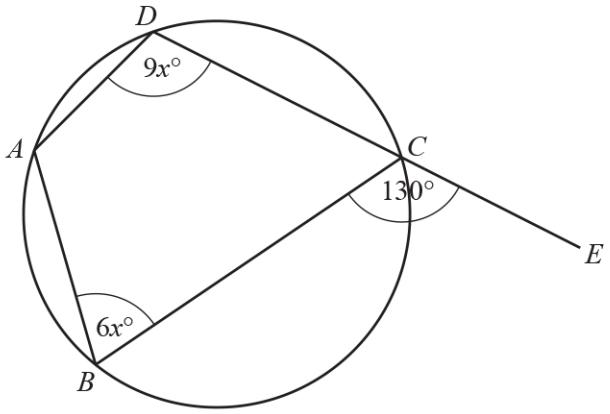
NOT TO SCALE

The diagram shows two parallel lines with two straight lines crossing.

Find the value of w.

$w =$ ..... [2]

70. 0607_w17_qp_22 Q: 10



NOT TO SCALE

ABCD is a cyclic quadrilateral.
DC is extended to *E*.
Angle *BCE* = 130°, angle *ABC* = 6*x*° and angle *ADC* = 9*x*°.

Find the value of

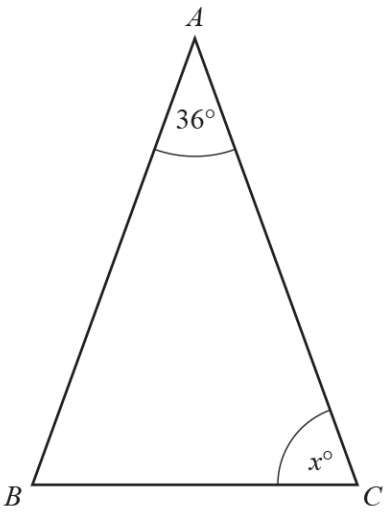
(a) angle *BAD*,

Angle *BAD* = ... [1]

(b) angle *ABC*.

Angle *ABC* = ... [2]

71. 0607_w17_qp_23 Q: 3



NOT TO SCALE

$AB = AC$.

Find the value of x.

$x =$ ..... [2]

---

72. 0607_w17_qp_23 Q: 7

The interior angle of a regular polygon is 160°.

Find the number of sides of this polygon.

..... [3]

---

01. 0607_m23_ms_22 Q: 4

Question	Answer	Marks	Partial Marks
	22.5 oe	2	**M1** for $8x = 180$ oe

02. 0607_m23_ms_22 Q: 9

Question	Answer	Marks	Partial Marks
	15	2	**M1** for $\frac{360}{24}$ oe

03. 0607_s23_ms_21 Q: 7

Question	Answer	Marks	Partial Marks
	9	3	**M2** for $[n =] \frac{360}{their(180-140)}$ or $40n = 360$ or **M1** for 180 – 140 or $\frac{180(n-2)}{n} = 140$

04. 0607_s23_ms_21 Q: 10

Question	Answer	Marks	Partial Marks
	79	2	**B1** for 79, 39 or 62 correctly added to diagram or **M1** for 180 – (39 + 62) oe

05. 0607_s23_ms_22 Q: 5

Question	Answer	Marks	Partial Marks
	105	2	**B1** for $\frac{360}{12}$ or 30 [for 1 hour] or 15 [for half an hour] or 255 seen

06. 0607_s23_ms_22 Q: 12

Question	Answer	Marks	Partial Marks
(a)	22	1	
(b)	123	1	**FT** 145 – *their***(a)**
(c)	57	1	**FT** 35 + *their***(a)**

07. 0607_s23_ms_22 Q: 16

Question	Answer	Marks	Partial Marks
(a)	Two from $\angle ADE = \angle ABC$ Corresponding $\angle$s $\angle AED = \angle ACB$ Corresponding $\angle$s $\angle DAE = \angle BAC$ common oe **[And** Angles equal]	**2**	**B1** for 1 pair with a reason or 2 pairs with no/incorrect reason
(b)	4 : 25	**1**	

08. 0607_s23_ms_23 Q: 2

Question	Answer	Marks	Partial Marks
	79	**1**	

09. 0607_s22_ms_21 Q: 12

Question	Answer	Marks	Partial Marks
(a)	116	**2**	**B1** for angle $DBC = 32^o$ allow angle $BDC = 32^o$
(b)	84	**2**	**B1** for angle $ABC = 42^o$ soi or for angle $OCA = 48^o$ soi

10. 0607_s22_ms_22 Q: 6

Question	Answer	Marks	Partial Marks
	63	**1**	

11. 0607_s22_ms_23 Q: 6

Question	Answer	Marks	Partial Marks
	24	**2**	**M1** for 360 / 15 OR **B1** for 156

12. 0607_s22_ms_23 Q: 9

Question	Answer	Marks	Partial Marks
(a)	$\angle EFD = \angle BFC$ (Vert) opposite $\angle$s $\angle EDF = \angle BCF$ Alternate $\angle$s $\angle DEF = \angle CBF$ Alternate $\angle$s OR Two of the above AND 3 angles are equal, triangles are similar	**2**	**B1** for 1 pair with reason or all 3 equal angle pairs identified
(b)	$3\frac{3}{4}$ oe	**2**	**M1** for $\frac{EF}{3} = \frac{5}{4}$ oe

13. 0607_w22_ms_21 Q: 9

Question	Answer	Marks	Partial Marks
(a)	107	**1**	
(b)	10	**2**	**B1** for $BAF = 73$ or $BAC = 63$

14. 0607_w22_ms_22 Q: 2

Question	Answer	Marks	Partial Marks
	165	**3**	**M2** for $180 - \frac{360}{24}$ or $\frac{(24-2)180}{24}$ or **M1** for $\frac{360}{24}$ or $(24-2) \times 180$

15. 0607_w22_ms_22 Q: 13

Question	Answer	Marks	Partial Marks
(a)	55 Alternate Segment	**2**	**B1** for each
(b)	125 Opposite angles in cyclic quadrilateral	**2**	**FT** 180 – *their* 55 **B1** for each

16. 0607_w22_ms_23 Q: 1

Question	Answer	Marks	Partial Marks
	[k =] 125 [m =] 55	**2**	**B1** for each

17. 0607_w22_ms_23 Q: 11

Question	Answer	Marks	Partial Marks
(a)	25	**1**	
(b)	40	**1**	
(c)	60	**1**	
(d)	60	**1**	**FT** *their* (c)

18. 0607_m21_ms_22 Q: 9

Question	Answer	Marks	Partial Marks
(a)	76	**1**	
(b)(i)	25	**1**	
(b)(ii)	80	**1**	

19. 0607_s21_ms_21 Q: 6

Question	Answer	Marks	Partial Marks
	12	**2**	**M1** for $360 \div 30$ or $180 - \frac{(30-2)\times 180}{30}$

20. 0607_s21_ms_22 Q: 5

Question	Answer	Marks	Partial Marks
	75	**2**	**B1** for angle EBC or angle $FCD = 65$ or for angle $BCF = 115$ or for angle $BEC = 75$

21. 0607_s21_ms_22 Q: 9

Question	Answer	Marks	Partial Marks
	15	**3**	**B1** for 120° or 60° **M1** for $360 = n(84 - \textit{their}\ 60)$ or better or $\frac{(n-2)180}{n} = 360 - (84 + \textit{their}\ 120)$

22. 0607_s21_ms_23 Q: 4

Question	Answer	Marks	Partial Marks
	Rhombus	**1**	

23. 0607_s21_ms_23 Q: 5

Question	Answer	Marks	Partial Marks
	160	1	

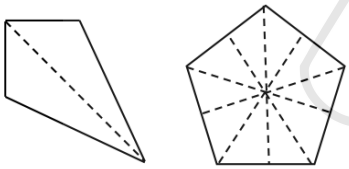
24. 0607_s21_ms_23 Q: 7

Question	Answer	Marks	Partial Marks
	162	3	**M2** for $180-\frac{360}{20}$ or $\frac{180(20-2)}{20}$ or **M1** for $\frac{360}{20}$ or $180(20-2)$ oe

25. 0607_s21_ms_23 Q: 15

Question	Answer	Marks	Partial Marks
	110	2	**B1** for angle $RST = 70$ or angle $RTA = 110$

26. 0607_w21_ms_21 Q: 3

Question	Answer	Marks	Partial Marks
		2	**B1** for each diagram

27. 0607_w21_ms_22 Q: 2

Question	Answer	Marks	Partial Marks
	2 0 oe	2	**B1** for each

28. 0607_w21_ms_22 Q: 7

Question	Answer	Marks	Partial Marks
	290	2	**M1** for 180 + 110 or for a diagram with a correct angle at *P*.

29. 0607_w21_ms_22 Q: 13

Question	Answer	Marks	Partial Marks
	63	2	**M1** for other angle at tangent = 63° or other angle in triangle = 40°

30. 0607_w21_ms_23 Q: 8

Question	Answer	Marks	Partial Marks
(a)	1800	2	**M1** for $(2\times12-4)\times90$ or $(12-2)\times180$ oe
(b)	$\frac{360}{180-x}$	2	**M1** for $180-x$ or $180n-360=nx$

31. 0607_s20_ms_21 Q: 9

Question	Answer	Marks	Partial Marks
	55	2	**B1** for angle $C=70$ or **M1** for $\frac{1}{2}(180-their\,C)$

32. 0607_s20_ms_22 Q: 6

Question	Answer	Marks	Partial Marks
	20	2	**M1** for $\frac{180}{2+3+4}$

33. 0607_s20_ms_22 Q: 9

Question	Answer	Marks	Partial Marks
	12	3	**M2** for $\frac{360}{180-150}$ oe or **M1** for $180-150$

34. 0607_s20_ms_23 Q: 4

Question	Answer	Marks	Partial Marks
(a)	Parallelogram	1	
(b)	Kite or Isosceles Trapezium	1	

35. 0607_s20_ms_23 Q: 9

Question	Answer	Marks	Partial Marks
(a)	82 Opposite angles of a cyclic quadrilateral [add up to 180] oe	2	**B1** for each
(b)	No and any mention of Alternate Segment Theorem oe	1	

36. 0607_w20_ms_22 Q: 1

Question	Answer	Marks	Partial Marks
	Rhombus [only]	1	

37. 0607_w20_ms_22 Q: 12

Question	Answer	Marks	Partial Marks
(a)	70	1	
(b)	70	1	
(c)	30	1	*their*(**b**) – 40

38. 0607_w20_ms_23 Q: 12

Question	Answer	Marks	Partial Marks
	68	3	**M1** for correct use of parallel lines to give a correct angle at *B* or *C*. **M1** for correct use of isosceles triangle

39. 0607_s19_ms_21 Q: 3

Question	Answer	Marks	Partial Marks
	28	2	**B1** for *CED* = 33 or *ECD* = 119 or *ECB* = 61 or *BFD* = 97

40. 0607_s19_ms_22 Q: 1

Question	Answer	Marks	Partial Marks
	[*x* =] 65 [*y* =] 115	2	**B1** **B1 FT** 180 – *their x*

41. 0607_s19_ms_22 Q: 2

Question	Answer	Marks	Partial Marks
	9	2	**M1** for $\frac{360}{40}$

42. 0607_s19_ms_22 Q: 15

Question	Answer	Marks	Partial Marks
	[*a* =] 25 [*b* =] 100	2	**B1** for each

43. 0607_s19_ms_23 Q: 3

Question	Answer	Marks	Partial Marks
	61	2	**M1** for $180 - 132$ or **M1** for $132 - 71$

44. 0607_s19_ms_23 Q: 5

Question	Answer	Marks	Partial Marks
	Rhombus	1	

45. 0607_s19_ms_23 Q: 16

Question	Answer	Marks	Partial Marks
	$[y =] 135 + 0.5x$	3	**M2** for $180 - y = 45 - 0.5x$ or **M1** for $90 - x$ as angle at centre

46. 0607_w19_ms_21 Q: 12

Question	Answer	Marks	Partial Marks
(a)	80	1	
(b)	72	1	

47. 0607_w19_ms_22 Q: 4

Question	Answer	Marks	Partial Marks
	36	3	**M2** for $\frac{360}{180-170}$ or **M1** for $180 - 170$

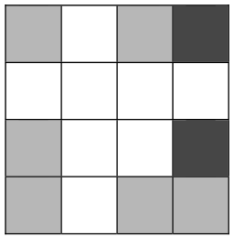
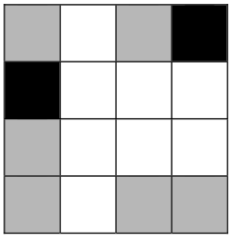
48. 0607_w19_ms_22 Q: 6

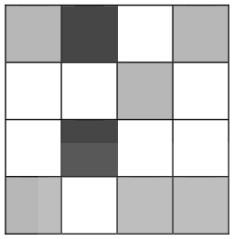
Question	Answer	Marks	Partial Marks
	76	2	**M1** for $(180 - 28) \div 2$

49. 0607_w19_ms_22 Q: 7

Question	Answer	Marks	Partial Marks
	0.75 oe	1	

50. 0607_w19_ms_23 Q: 3

Question	Answer	Marks	Partial Marks
(a)		1	or 

Question	Answer	Marks	Partial Marks
(b)		1	

51. 0607_w19_ms_23 Q: 6

Question	Answer	Marks	Partial Marks
	40, 70, 100	2	**B1** for any two.

52. 0607_w19_ms_23 Q: 13

Question	Answer	Marks	Partial Marks
	$BC = DA$ [opp] sides of parallelogram	1	
	$\angle BCQ = \angle DAP$ Alternate angles	1	
	$AP = QC$ and SAS	1	If 0 scored, **SC1** for $BC = DA$ and $\angle BCQ = \angle DAP$ and $AP = QC$

53. 0607_s18_ms_21 Q: 2

Question	Answer	Marks	Partial Marks
(a)	232 to 236	1	
(b)	100	1	
(c)	20	2	**M1** for $\frac{360}{18}$ oe If 0 scored **SC1** for 160 seen

54. 0607_s18_ms_21 Q: 7

Question	Answer	Marks	Partial Marks
	[x =] 70 [y =] 110	2	**B1** for each If 0 scored **SC1** for *their x* + *their y* =180

55. 0607_s18_ms_22 Q: 1

Question	Answer	Marks	Partial Marks
	trapezium	1	

56. 0607_s18_ms_22 Q: 2

Question	Answer	Marks	Partial Marks
	63	1	

57. 0607_w18_ms_21 Q: 2

Question	Answer	Marks	Partial Marks
	72	1	

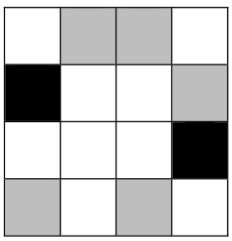
58. 0607_w18_ms_21 Q: 7

Question	Answer	Marks	Partial Marks
	45	2	**M1** for $360 \div 8$ or $180 - \frac{6}{8} \times 180$

59. 0607_w18_ms_21 Q: 13

Question	Answer	Marks	Partial Marks
	[0]54	2	**M1** for $234 - 180$

60. 0607_w18_ms_22 Q: 3

Question	Answer	Marks	Partial Marks
		1	

61. 0607_w18_ms_22 Q: 12

Question	Answer	Marks	Partial Marks
(a)	70	**2**	**B1** for $\angle DOC = 140$
(b)	120	**1**	
(c)	60	**2**	**B1** for reflex $\angle COD = 220$ or $\angle OCA = 30$

62. 0607_w18_ms_23 Q: 9

Question	Answer	Marks	Partial Marks
(a)	0	**1**	
(b)	2	**1**	

63. 0607_w18_ms_23 Q: 11

Question	Answer	Marks	Partial Marks
(a)	[x =] 48 [y =] 42	**2**	**B1** for each **FT** 90 − *their x*
(b)	[p =] 44 [q =] 51	**2**	**B1** for each

64. 0607_s17_ms_22 Q: 4

Question	Answer	Marks	Partial Marks
	0 2	**2**	**B1** for each (must be correct order)

65. 0607_s17_ms_22 Q: 8

Question	Answer	Marks	Partial Marks
(a)	*BCD*	**1**	Must be that order
(b)	9	**2**	**M1** for $\frac{x}{6} = \frac{6}{4}$ oe

66. 0607_s17_ms_22 Q: 12

Question	Answer	Marks	Partial Marks
(a)	35	**1**	

Question	Answer	Marks	Partial Marks
(b)	130	1	**FT** 165 – *their* (a)

67. 0607_s17_ms_23 Q: 9

Question	Answer	Marks	Part Marks
	[p =] 75 [q=]105	2	**B1** for each

68. 0607_w17_ms_21 Q: 9

Question	Answer	Marks	Partial Marks
(a)	110	2	**B1** for reflex angle AOD = 220 or AXD = 70

Question	Answer	Marks	Partial Marks
(b)	45	2	**FT** 155 – *their* 110 **B1** for angle BCD = *their* 110 + 25

69. 0607_w17_ms_22 Q: 1

Question	Answer	Marks	Partial Marks
	120	2	**B1** for any correct angle marked on the diagram or stated oe

70. 0607_w17_ms_22 Q: 10

Question	Answer	Marks	Partial Marks
(a)	130	1	
(b)	72	2	**M1** for $6x + 9x = 180$ oe implied by 12 seen

71. 0607_w17_ms_23 Q: 3

Question	Answer	Marks	Partial Marks
	72	2	**M1** for $\frac{180-36}{2}$

72. 0607_w17_ms_23 Q: 7

Question	Answer	Marks	Partial Marks
	18	3	**M2** for $\frac{360}{180-160}$ oe or **M1** for $180-160$