IG-Maths
0580

Exercise - Geometry
Paper-2
(21/22/23)

(SURESH GOEL)

Paper - 21/22/23/ Exercise - 2

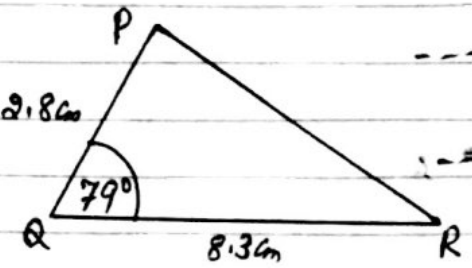
Q1 The line AB is one side of an equilateral triangle ABC. Using a straight edge and compasses only, construct triangle ABC. ---[2]

A ——— B

M-17/22/Q2

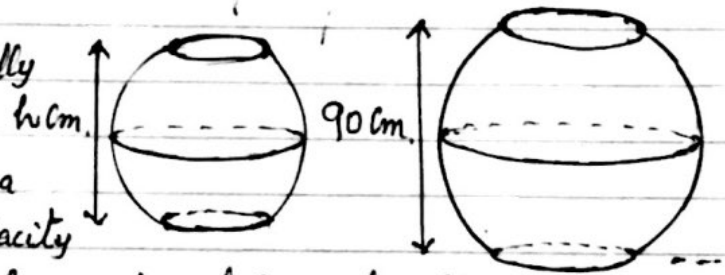
Q2 (a) Calculate the area of triangle PQR. ---[2]

(b) Triangle PQR is enlarged by scale factor 4.5. Calculate the area of the enlarged triangle. ---[2]



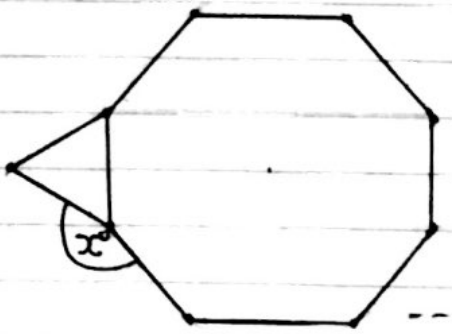
M-17/22/Q19

Q3 The two barrels in the diagram are mathematically similar. The smaller barrel has a height h cm. and a capacity of 100 litres. The larger barrel has a height of 90 cm and a capacity of 160 litres. Work out the value of h. ---[3]



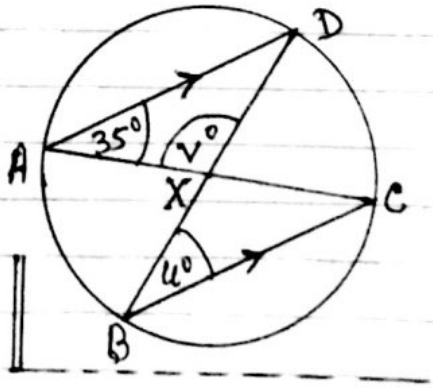
S-17/21/Q11

Q4 The diagram shows a regular octagon joined to an equilateral triangle. Work out the value of x. ---[3]

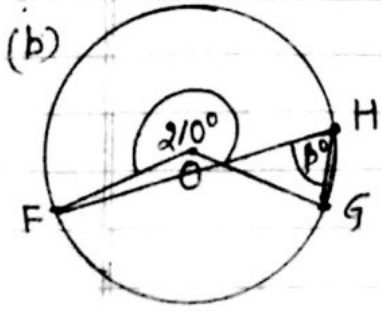


S-17/21/Q14

Q5 (a) A, B, C and D are points of the circle. AD is parallel to BC. The Chords AC and BD intersect at X. Find the value of u and value of v. ---[3]



(b)

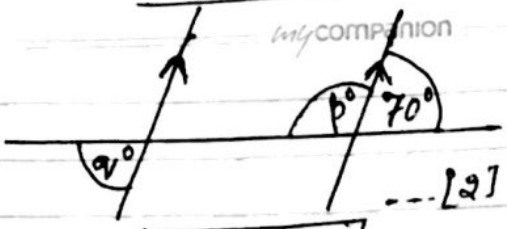


F, G and H are points on the circle, centre O. Find the value of p. ---[2]

S-17/21/Q21

Exercise-2

Q6 The diagram shows a straight line intersecting two parallel lines.
Find the value of p and the value of q.

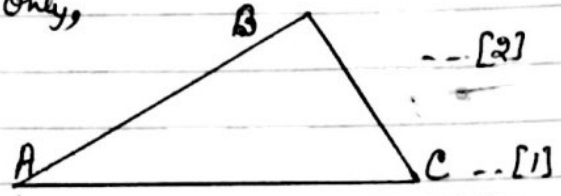


---[2]

S-17/22/Q8

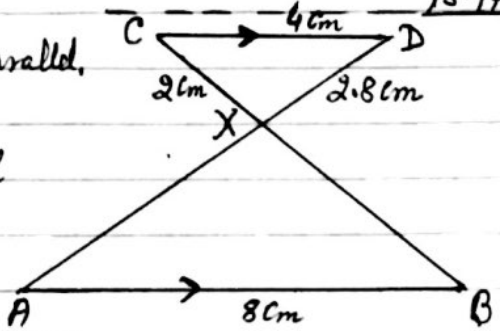
Q7 (a) Using a straight edge and compasses only, construct the bisector of angle BAC. ---[2]

(b) Shade the region in the triangle that is nearer to AC than to AB. ---[1]



S-17/22/Q6

Q8 In the diagram, AB and CD are parallel.
AD and BC intersect at X.
AB = 8 cm, CD = 4 cm, CX = 2 cm and DX = 2.8 cm.

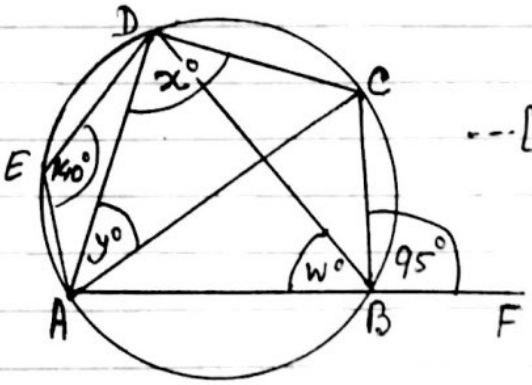


(a) Complete the statement:
Triangle ABX is --- to triangle DCX. ---[1]

(b) Calculate AX. ---[2]

(c) The area of triangle ABX is $y\ cm^2$. S-17/22/Q24
Find the area of triangle DCX in terms of y. ---[1]

Q9 A, B, C, D and E lie on a circle.
AB is extended to F.
Angle AED = 140° and angle CBF = 95°
Find the value of w, x and y. ---[5]

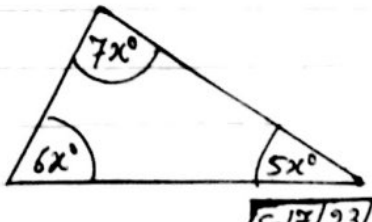


S-17/22/Q26

Q10 The three angles in a triangle are $5x°$, $6x°$ and $7x°$.

(a) Find the value of x. ---[2]

(b) Work out the size of the largest angle in the triangle. ---[1]



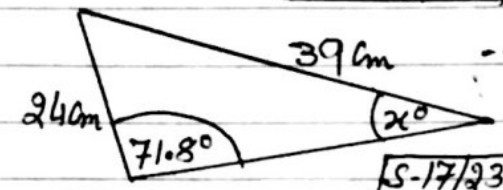
S-17/23/10

Exercise-2

Q11 Two bottles and their labels are mathematically similar. The smaller bottle contains 0.512 litres of water and has a label with area 96 cm². The larger bottle contains 1 litre of water. Calculate the area of the larger label. ---[3]

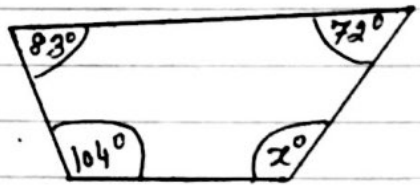
S-17/23/Q13

Q12 Find the value of x. --[3]



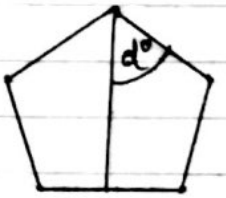
S-17/23/Q15

Q13 The diagram shows a quadrilateral. Find the value of x. --[1]



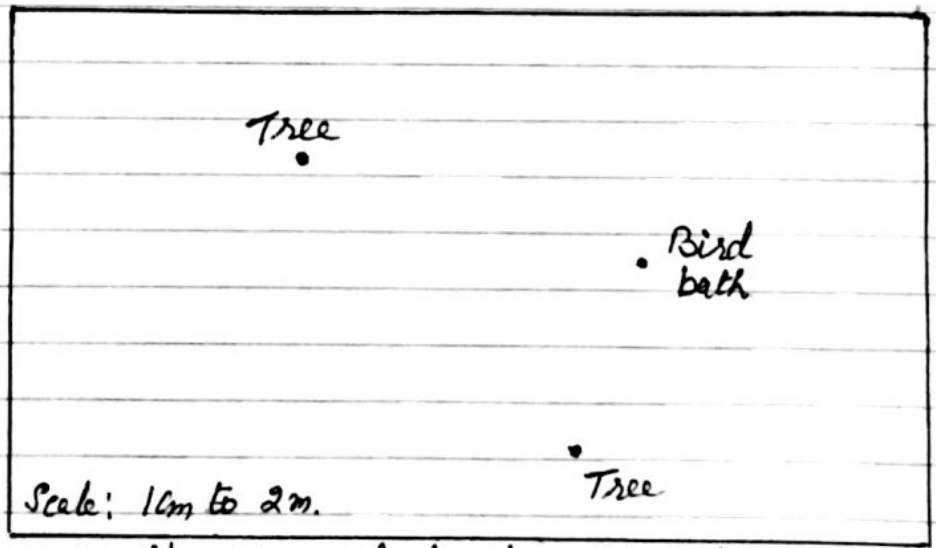
W-17/21/Q1

Q14 The diagram shows a regular pentagon. AB is a line of symmetry. Work out the value of d. ---[3]



W-17/21/Q11

Q15



The diagram shows a scale drawing of Tariq's garden. The scale is 1 centimetre represents 2 metres. Tariq puts a statue in the garden. The statue is equidistant from the two trees and 10m from the bird bath. Find by construction, the point where Tariq puts the statue. Label the point S. --[4]

W-17/21/Q18

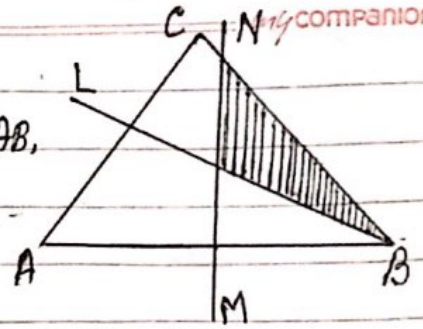
Exercise -2

Q16 In the diagram, BL is the bisector of angle ABC and MN is the perpendicular bisector of AB. Complete the statement.

The shaded region contains the points, inside triangle ABC, that are.

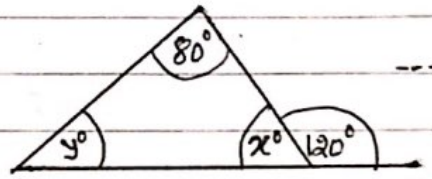
- nearer to B than to A

and - nearer to ---- than ----.



W-17/22/Q3 --[1]

Q17 In the diagram, AB is a straight line. Find the value of x and the value of y. --[2]

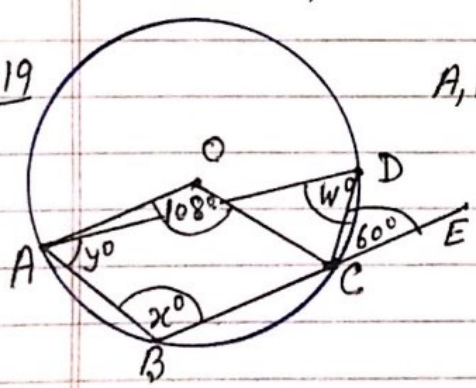


W-17/22/Q5

Q18 The diagram shows part of a regular polygon. The exterior angle is $x°$. The interior angle is $29x°$. Work out the number of sides of the polygon. --[3]

W-17/22/Q17

Q19



A, B, C and D are point on the circle, centre O. BCE is a straight line. Angle AOC = 108° and angle DCE = 60°

Calculate the values of w, x and y. --[3]

W-17/22/Q22

Q20 A quadrilateral has one line of symmetry and no rotational symmetry. Write down the name of this quadrilateral. --[1]

W-17/23/Q4

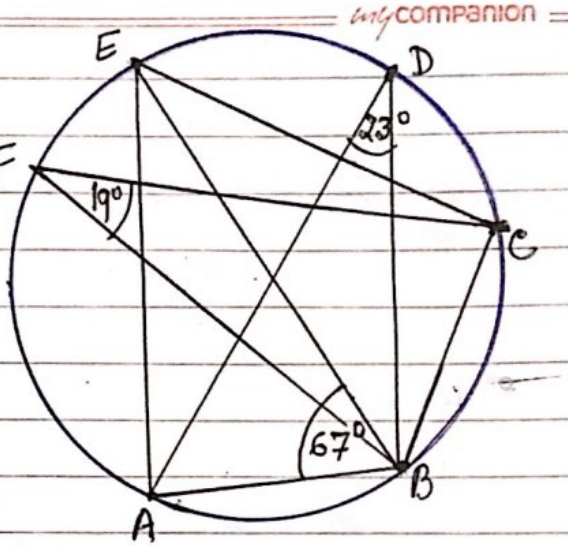
Q21 A model of a house is made using a scale of 1:30. The model has a volume of 2400 cm^3. Calculate the volume of the actual house. Give your answer in cubic metres. --[3]

W-17/23/Q10

Q22 Calculate the size of one interior angle of a regular 12-sided polygon. [3]

W-17/23/Q11

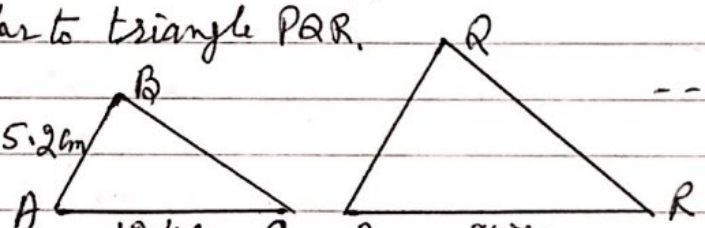
Q23 In the diagram, points A, B, C, D, E and F lie on the circumference of the circle. Angle BFC = 19° and angle ADB = 23° and angle ABE = 67°
Work out



(a) angle BEC ---[1]
(b) angle ABC --[3]
(c) angle BCE ---[2]

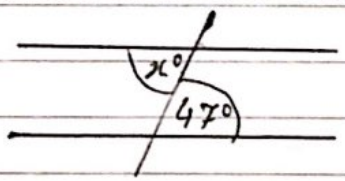
W-17/23/Q22

Q24 Triangle ABC is similar to triangle PQR.
Find PQ. ---[2]



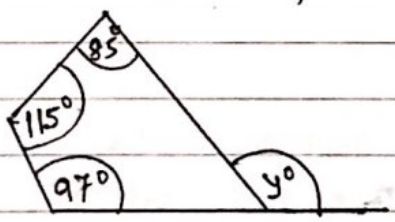
M-16/22/Q5

Q25 (a) Find the value of x.



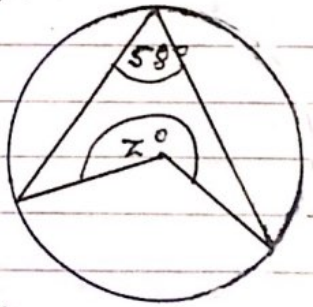
---[1]

(b)



Find the value of y. ---[2]

(c)

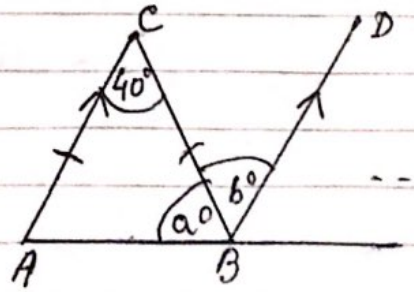


The diagram shows a circle, centre O.
Find the value of z. --[2]

M-16/22/Q18

Q26 A quadrilateral has a rotational symmetry of order 2 and no line of symmetry. Write down the mathematical name of this quadrilateral. S-16/22/Q4 --[1]

Q27 Triangle ABC is isosceles and AC is parallel to BD.
Find the value of a and the value of b.



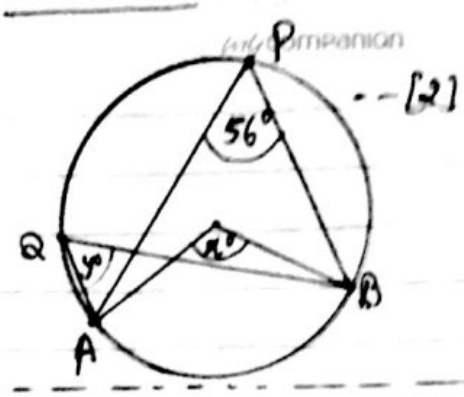
---[2]

S-16/21/Q9

16-Maths 0580 Geometry

Exercise-2

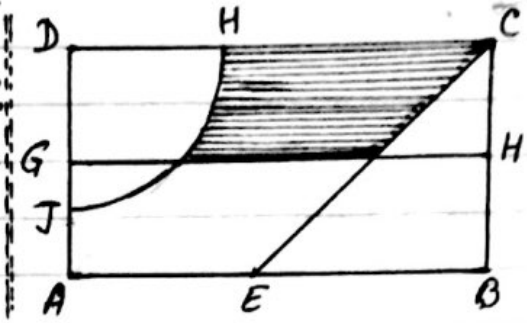
Q28 A, B, P and Q lie on the circle, centre O.
Angle APB = 56°.
Find the value of x and the value of y.



--[2]

S-16/21/Q11

Q29 The diagram shows a rectangular garden divided into different areas.
FG is the perpendicular bisector of BC.
The arc HJ has centre D and radius 20 m.
CE is the bisector the angle DCB.
Write down two more statements using **loci** to describe the shaded region inside the garden.
The shaded region is
- nearer to C than B.
-
-



---[2]

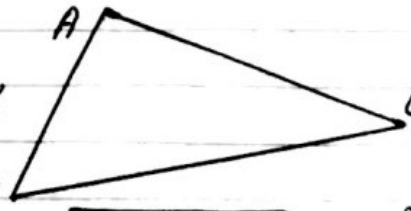
S-16/21/Q14

Q30 Five angles of hexagon are each 115°.
Calculate the size of the sixth angle. S-16/21/Q17 --[3]

Q31 A map is drawn on a scale of 1 : 1000 000.
A forest on the map has an area of 4.6 cm².
Calculate the actual area of the forest in square kilometres. S-16/22/Q7 --[2]

Q32 A regular polygon has an interior angle of 172°.
Find the number of sides of this polygon. S-16/22/Q9 --[3]

Q33 The diagram shows triangle ABC.

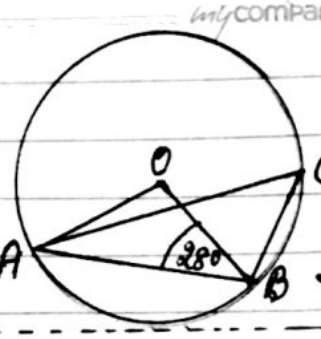


(a) Using a straight edge and compasses only, construct the bisector of angle ABC. --[2]

(b) Draw the locus of points inside the triangle that are 3 cm from AC. S-16/22/Q17 --[1]

Q34 In the diagram, A, B and C lie on the circumference of a circle, centre O. Work out the size of Angle ACB. Give a reason for each step of your working.

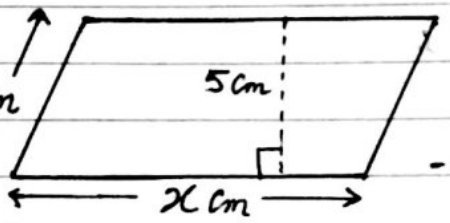
S-16 | 22 | Q 21



...[4]

Q35 The area of parallelogram is 51.5 cm². Work out the value of x.

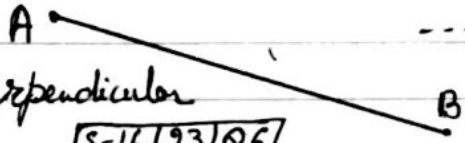
S-16 | 23 | Q 3



...[2]

Q36 Using a straight edge and compasses only, construct the perpendicular bisector of the line AB.

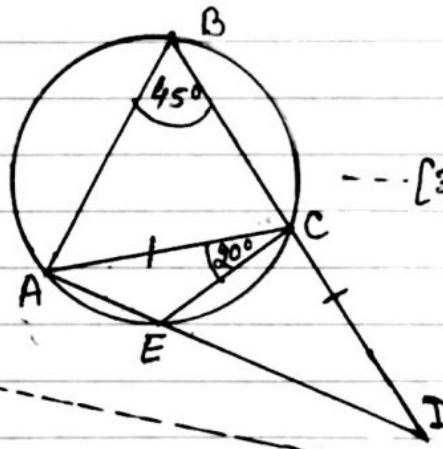
S-16 | 23 | Q 6



...[2]

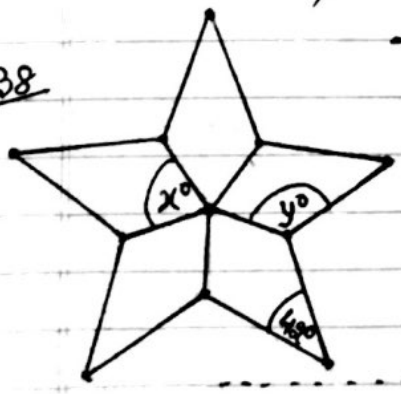
Q37 ABCE is a cyclic quadrilateral. AED and BCD are straight lines. AC = CD, angle ABC = 45° and angle ACE = 20°. Work out angle ECD.

S-16 | 23 | Q 12



...[3]

Q38



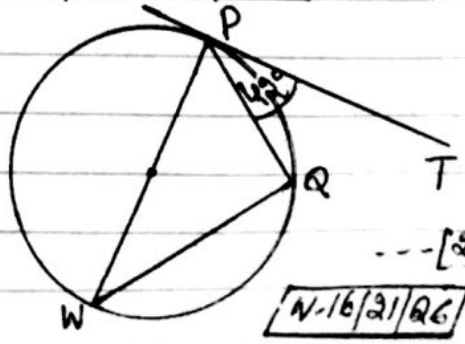
The diagram is made from 5 congruent kites. Work out the value of.

(a) x ...[1]

(b) y ...[2]

S-16 | 23 | Q 13

Q39 In the diagram, PT is a tangent to the circle at P. PW is a diameter and angle TPQ = 42°. Find angle PWQ



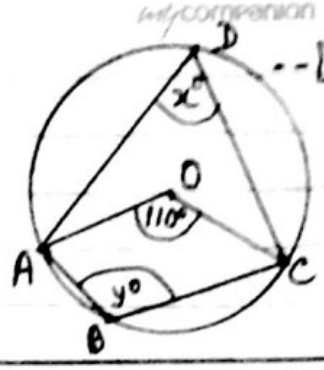
...[2]

N-16 | 21 | Q 6

Exercise - 2

Q40 A, B, C and D lie on the circle, centre O.

Find the value of x and the value of y. --[2]



W-16/21/Q9

Q41 Two cups are mathematically similar. The larger cup has a capacity 0·5 litres and height 8 cm. The smaller cup has capacity 0·25 litres. Find the height of the smaller cup. W-16/21/Q16 ---[3]

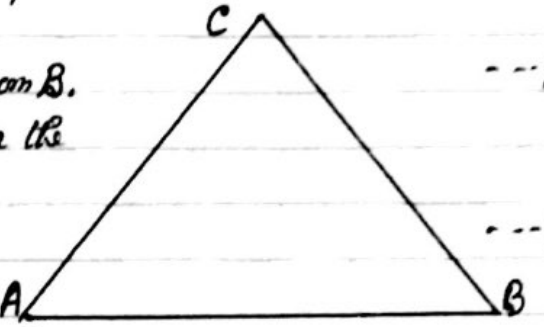
Q42 (a) Construct the locus of points, inside the triangle, that are 5 cm from B. ---[1]

(b) Construct the locus of points, inside the triangle, that are equidistant from AB and BC. ---[2]

(c) Shade the region, inside the triangle, containing points that are.

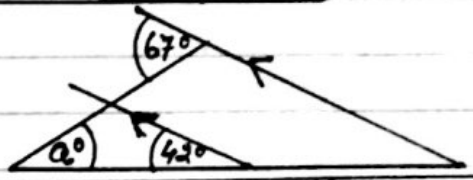
- more than 5 cm from B.
- nearer to AB than to BC. ---[1]

and



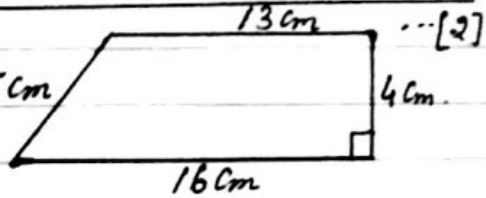
W-16/21/Q17

Q43 Find the value of a. ---[2].



W-16/22/Q2

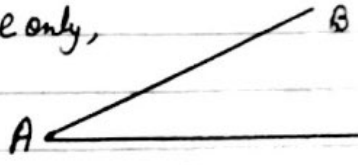
Q44 Calculate the area of this trapezium. ---[2]



W-16/22/Q4

Q45 The length of a backpack of capacity 30 litres is 53 cm. Calculate the length of a mathematically similar backpack of capacity 20 litres. W-16/22/Q10 ---[3]

Q46 (a) Using compasses and a straight edge only, construct the bisector of angle BAC. ---[2]



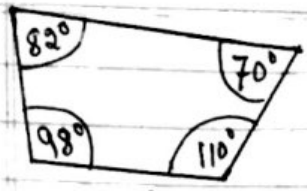
(b) Complete the statement.

The bisector of angle BAC is the locus of points that are ----

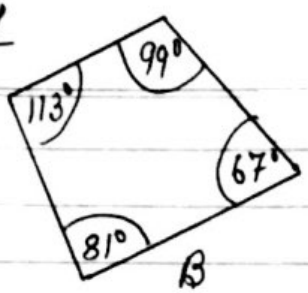
---------. W-16/22/Q11 ---[1]

Exercise-2

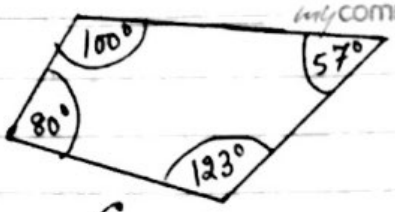
Q47



A



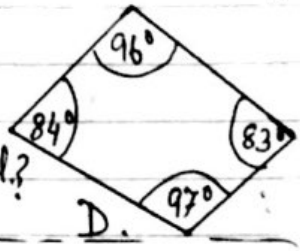
B



C

---[1]

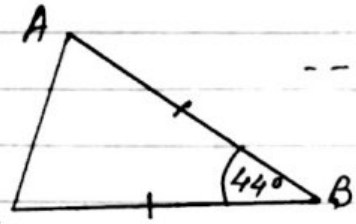
The diagram shows four quadrilaterals A, B, C and D.
Which one of these could be a cyclic quadrilateral?



D.

W-16/23/Q3

Q48 (a) Triangle ABC is an isosceles triangle with AB = CB. Angle ABC = 44°
Find angle ACB.



--[1]

(b) A regular polygon has an exterior angle of 40°. Work out the number of sides of this polygon.

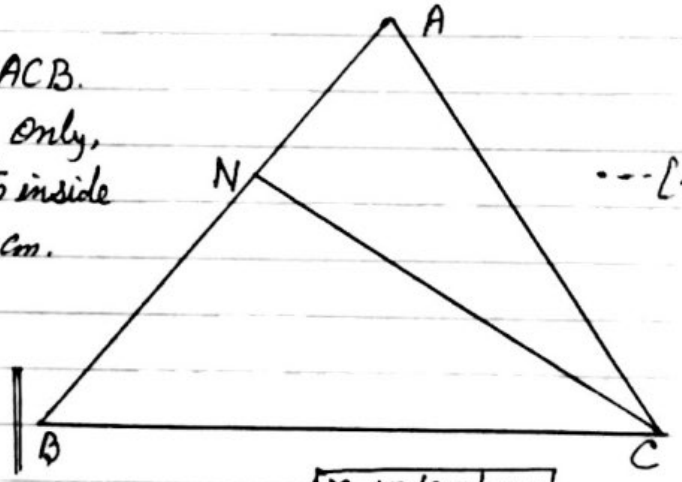
W-16/23/Q15 --[2]

Q49. In triangle ABC, CN is the bisector of angle ACB.

(a) Using a ruler and compasses only, construct the locus of points inside triangle ABC that are 5.7 cm. from B.

(b) Shade the region inside triangle ABC that is.

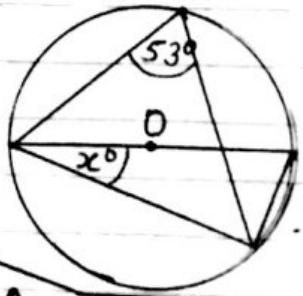
- more than 5.7 cm from B
- nearer to BC than to AC.



---[1]

M-15/22/Q6 --[1]

Q50 The diagram shows a circle, centre O.
Find the value of x.



M-15/22/Q7 --[2]

Q51 (a) The diagram shows an isosceles triangle.
Find the value of x. ---[1]

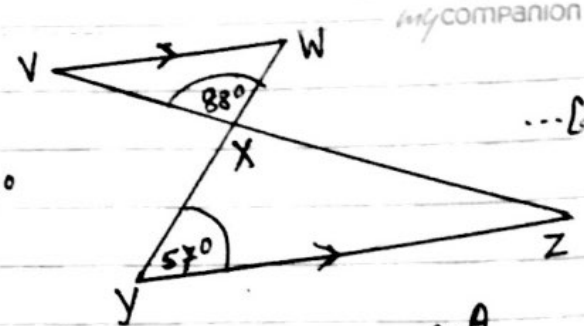
(b) The exterior angle of regular polygon is 24°
Find the number of sides of the regular polygon.
---[2]

M-15/22/Q8

Geometry

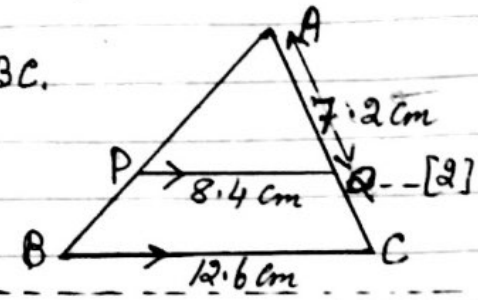
Exercise-2

Q52 (a) Two straight lines VZ and YW intersect at X.
VW is parallel to YZ., angle XYZ = 57°
and angle VXW = 88°
Find angle WVX.



...[2]

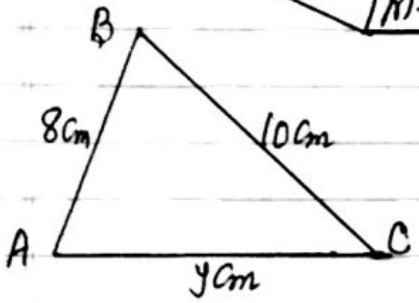
(b) ABC is a triangle and PQ is parallel to BC.
BC = 12·6 cm, PQ = 8·4 cm and AQ = 7·2 cm.
Find AC.

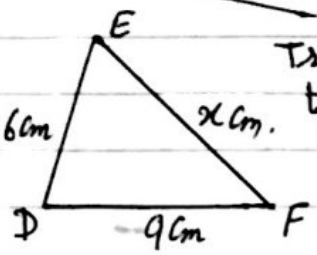


--[2]

M-15/22/Q20

Q53 Triangle ABC is similar to triangle DEF. Calculate the value of.

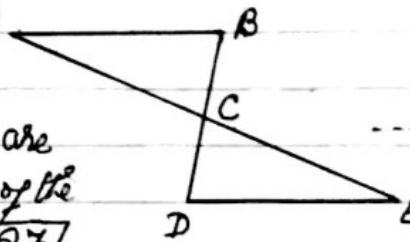




(a) x --[2]

(b) y S-15/21/Q19 --[2]

Q54 The diagram shows two straight lines, AE and BD, intersecting at C.
Angle ABC = angle EDC, Triangles ABC and EDC are congruent. Write down two properties of the line segments AB and DE. S-15/22/Q7



--[2]

Q55 The diagram shows the positions of three points A, B and C.

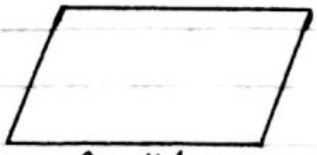
(a) Draw the locus of points which are 4 cm from C. --[1]

(b) Using a straight edge and compasses only, construct the locus of points which are equidistant from A and B. --[2]

(c) Shade the region which is
- less than 4 cm from C
and
- nearer to B than to A. S-15/22/Q19 --[1]

Q56

Rhombus



Parallelogram

Trapezium.

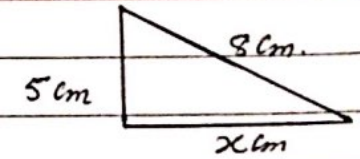
Write down which one of these shapes has:
- rotational symmetry of order 2
and
- no line symmetry.

W-15/22/Q8 --[1]

Geometry

Exercise-2

Q57 Calculate the value of x.

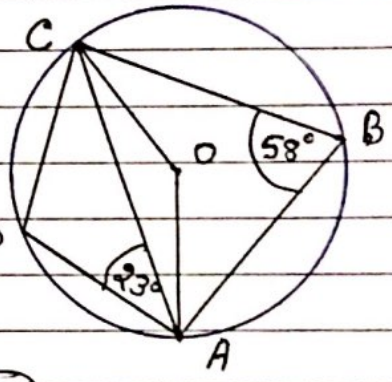


W-15/22/Q11 ---[3]

Q58 Find the sum of the interior angles of a 25-sided polygon. W-15/23/Q8 ---[2]

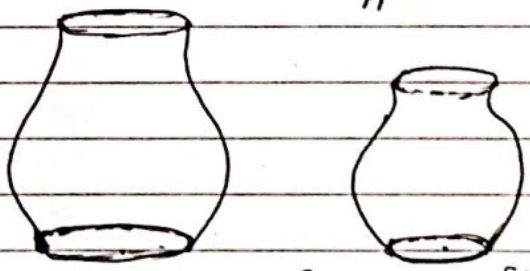
Q59 Two containers are mathematically similar. Their volumes are $54cm^3$ and $128cm^3$. The height of the smaller container is 4.5cm. Calculate the height of the larger container. W-15/23/Q14 ...[3]

Q60



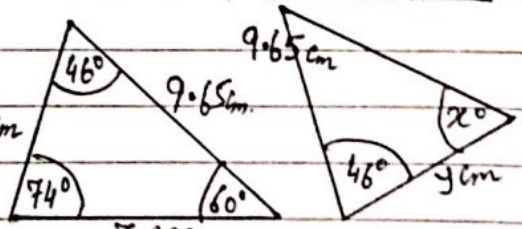
ABCD lie on a circle centre O.
Angle ABC = 58° and angle CAD = 23°
Calculate. (a) angle OCA ---[2]
(b) angle DCA ---[2]
S-14/21/Q13

Q61 The two containers are mathematically similar in shape. The larger container has a volume of $3456cm^3$, and a surface area of $1024cm^2$.



The smaller container has a volume of $1458cm^3$. ---[4]
Calculate the surface area of the smaller container. S-14/22/Q18

Q62 These two triangles are congruent.



Write down the value of.
(a) x ---[1]
(b) y ---[1]
S-14/23/Q7

ZEBRA

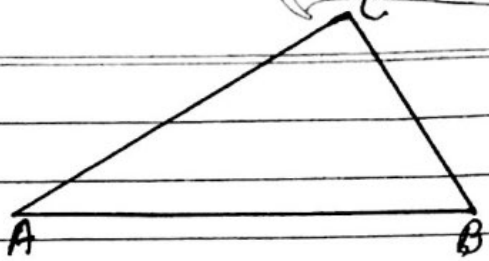
Q63 Write down the letters in the word above that have.
(a) Exactly one line of symmetry. ---[1]
(b) Rotational symmetry of order 2. ---[1]
W-14/21/Q3

Exercise - 2

Q64 (a) Using compasses and straight edge only, construct.

(i) the perpendicular bisector of AC, --[2]

(ii) the bisector of angle ACB. --[2]



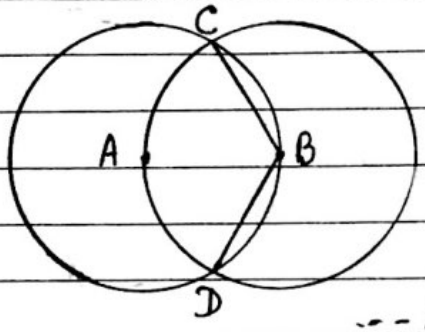
(b) Shade the region inside the triangle which is.

- nearer to A than to C

and - nearer to AC than to BC. --[1]

W-14|21|Q15

Q65 Two circles, centres A and B, are each of radius 8 cm and intersect at C and D. Each circle passes through the centre of the other circle.

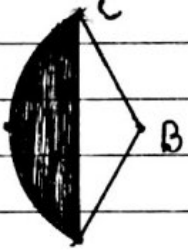


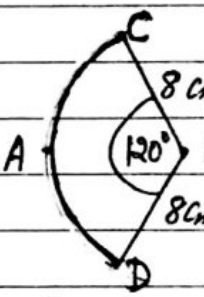
(a) Explain why angle CBD is 120°. --[1]

(b) For the circle, centre B, find the area of the sector BCD. --[2]

(c) (i) Find the area of the shaded segment CAD. --[3]

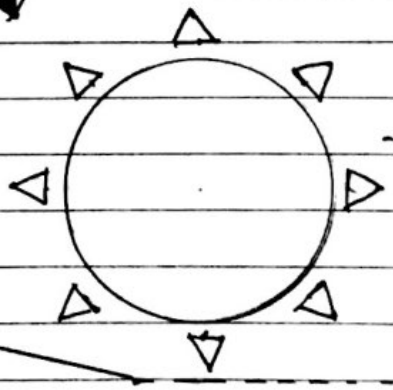
(ii) Find the area of overlap of two circles. --[1]





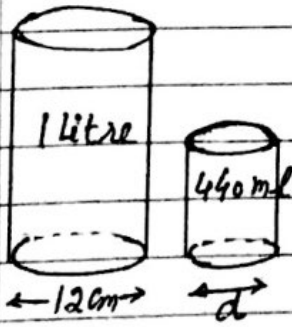
W-14|21|Q19

Q66 Write down the order of rotational symmetry of this shape. --[1]



W-14|22|Q3

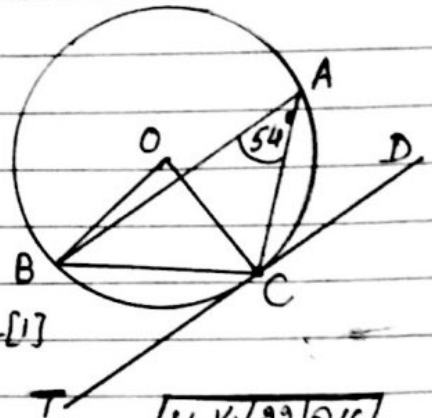
Q67



Two cylindrical cans are mathematically similar. The larger can has a capacity of 1 litre and the smaller can has a capacity of 440 ml. Calculate the diameter, d, of the 440 ml can. --[3]

W-14|22|Q9

Q68 A, B and C are points on a circle, centre O. TCD is a tangent to the circle. Angle BAC = 54°



(a) Find angle BOC, giving a reason for your answer. ---[2]

(b) When O is the origin, the position vector of C is $\begin{pmatrix} 3 \\ -4 \end{pmatrix}$.

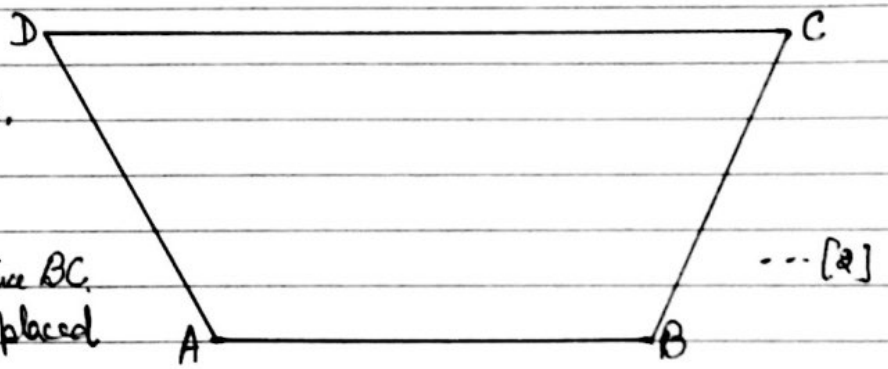
(i) Work out the gradient of radius OC. --[1]

(ii) D is point (7, k). Find the value of k. ---[1]

W-14 | 22 | Q16

Q69 The diagram shows the plan, ABCD, of a park. The scale is:

1 Cm = 20 m.



(a) Find the actual distance BC. ---[2]

(b) A fountain, F, is to be placed
- 160 m from C.

and - equidistant from AB and AD.

On the diagram, using a ruler and compasses only, construct and mark the position of F. ---[5]

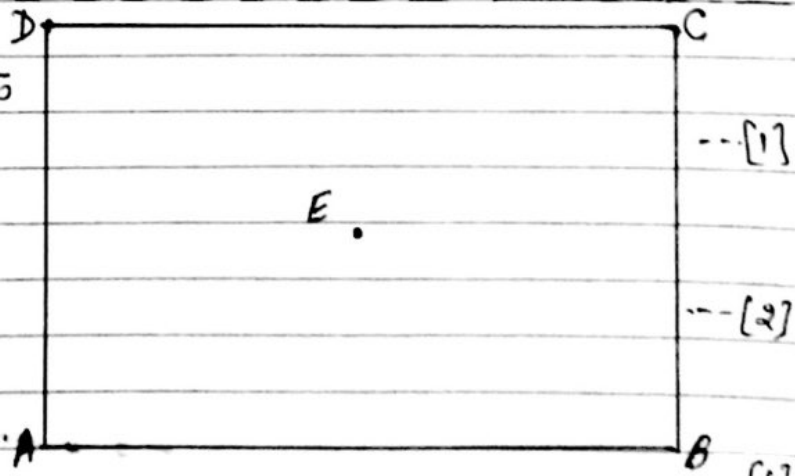
Leave in all your construction lines.

W-14 | 22 | Q20

Q70 Find the interior angle of a regular polygon with 18 sides. ---[3]

W-14 | 23 | Q7

Q71(a) Draw the locus of the points which are 3 cm from E. ---[1]



(b) Using straight edge and compasses only, construct the bisector of angle DCB. ---[2]

(c) Shade the region which is.
- less than 3 cm from E

and - nearer to CB than to CD. ---[1]

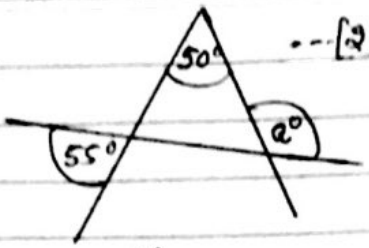
W-14 | 23 | Q12

Geometry

Exercise-2

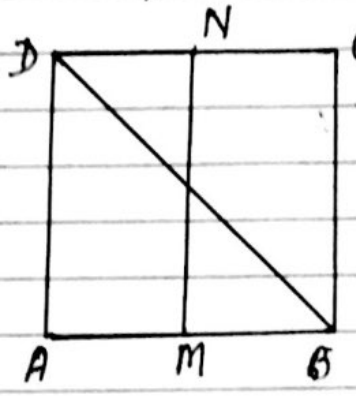
Q72 Use the information in the diagram to find the value of a. --[2]

S-13/21/Q4



Q73 The diagram shows a square ABCD. M is the midpoint of AB and N is the mid point of CD.

S-13/21/Q7

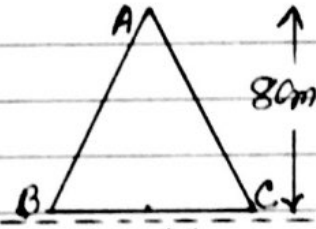


(a) Complete the statement.
The line MN is the locus of points inside the square which are --- --[1]

(b) Shade the region inside the square containing points which are nearer to AB than to BC and nearer to A than to B. --[1]

Q74 Triangle ABC has a height of 8cm. and an area of 42 cm^2. Calculate the length of BC. ----[2]

S-13/22/Q5



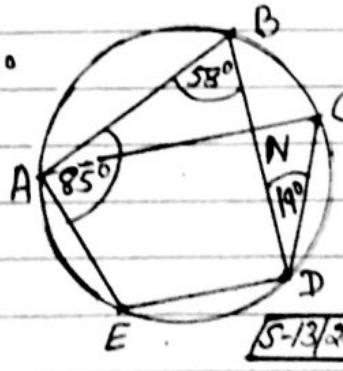
Q75 A car, 4·4 metres long, has a fuel tank which holds 65 litres of fuel when full. The fuel tank of mathematically similar model of the car holds 0·05 litres of fuel when full. Calculate the length of the model car in cm. --[3]

S-13/22/Q9

Q76 A, B, C, D and E are the points on a circle. angle ABD = 58°, angle BAE = 85 and angle BDC = 19° BD and CA intersect at N. Calculate

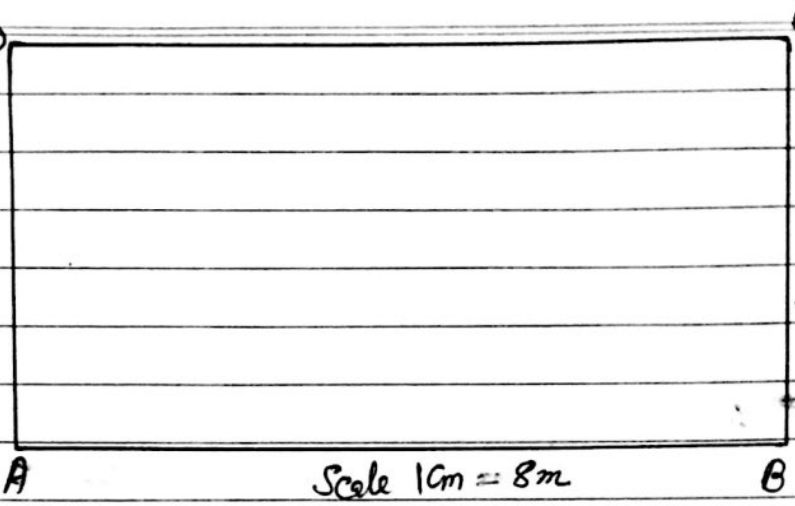
(a) angle BDE ---[1]

(b) angle AND --[2]



S-13/22/Q10

Q77 The rectangle ABCD is a scale drawing of a rectangular football pitch.



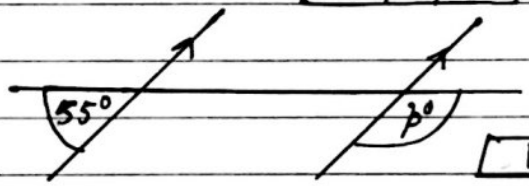
(a) Construct the locus of points 40 m from A and inside the rectangle. --[2]

(b) Using a straight edge and compasses only, Construct the perpendicular bisector of DB. --[2]

(c) Shade the region on the football pitch which is more than 40 m from A and nearer to D than to B. --[1]

5-13|22|Q19

Q78 Find the value of p.



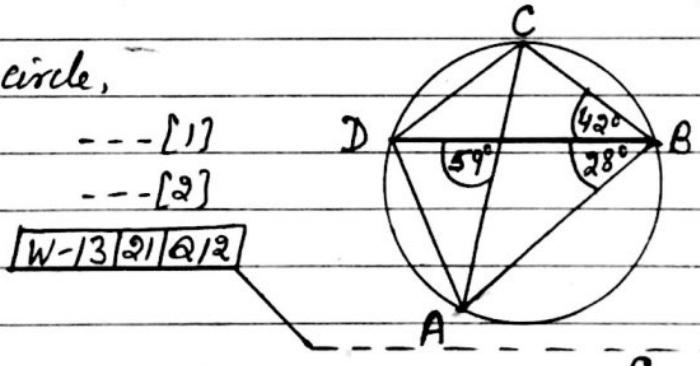
---[2]

W-13|21|Q3

Q79 The volume of a child's model plane is 1200 cm³. The volume of the full size plane is 4050 m³. Find the scale of the model in the form 1:n --[3]

W-13|21|Q11

Q80



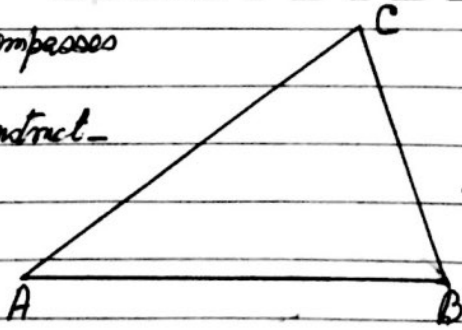
A, B, C and D lie on the circle,

Find. (a) angle ADC. ---[1]

(b) angle ADB ---[2]

W-13|21|Q12

Q81 (a) In this part, use a straight edge and compasses only and show your construction arcs. Construct-



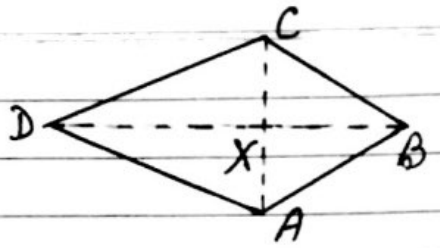
(i) the bisector of angle B. --[2]

(ii) the locus of points equidistant from B and C. --[2]

(b) Shade the region inside triangle ABC, containing the points which are, nearer BC than to BA and nearer to C than to B. --[1]

W-13|21|Q20

Q82 ABCD is a kite. The diagonals AC and BD intersect at X. AC = 12 cm, BD = 20 cm. and DX : XB = 3 : 2.

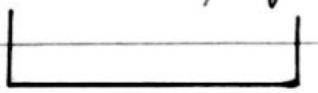


(a) Calculate angle ABC. ---[3]

(b) Calculate the area of the kite. ---[2]

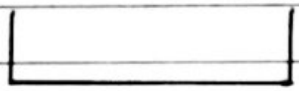
W-13/21/Q21

Q83 (a) Add one line to the diagram so that it has two lines of symmetry.



---[1]

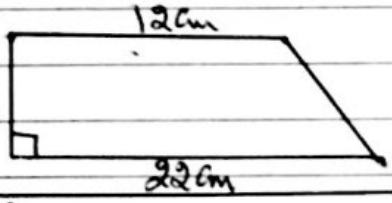
(b) Add two lines to the diagram so that it has rotational symmetry of order 2.



---[1]

W-13/22/Q5

Q84 Find the area of the trapezium.



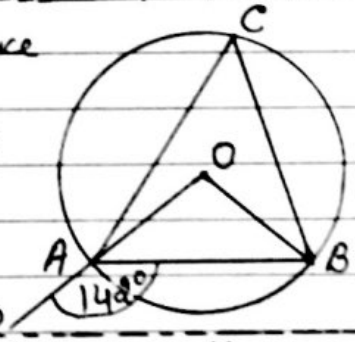
---[2]

W-13/22/Q7

Q85 The exterior angle of a regular polygon is 36°. What is the name of the polygon? ---[3]

W-13/22/Q9

Q86 A, B and C are points on the circumference of a circle centre O. OAD is a straight line and angle DAB = 142°. Calculate the size of angle ACB. ---[3]

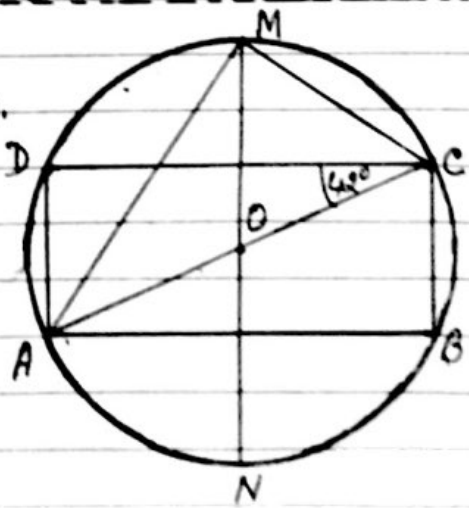


W-13/22/Q14

Q87 The vertices of the rectangle ABCD lie on a circle centre O.
MN is a line of symmetry of the rectangle.
AC is a diameter of the circle and angle ACD = 42°. Calculate:

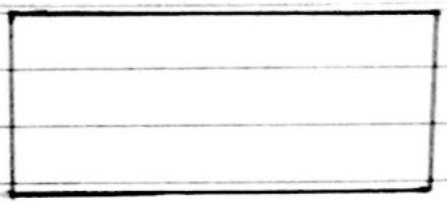
(a) angle CAM ---[2]

(b) angle DCM ---[2]



W-13/23/Q13

Q88 (a) Construct the locus of all the points which are 3 cm from vertex A and outside the rectangle. ...[2]

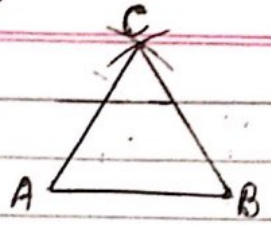


(b) Construct, using a straight edge, and compasses only, one of the line of symmetry of the rectangle. ...[2]

W-13/23/Q15

Answers

Q1



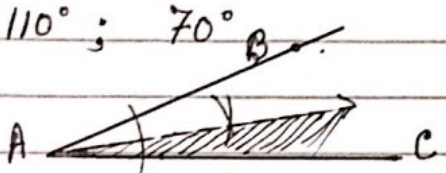
Q2 (a) 11.4 (b) 231

Q3. 76.9 Q4. 165°

Q5. (a) $u = 35°$, $V = 110°$ (b) 75°

Q6. 110° ; 70°

Q7



Q8 (a) Similar (b) 5.6 (c) Y/4

Q9. $w = 40°$, $x = 95°$, $y = 45°$

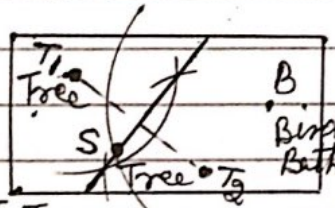
Q10. (a) 10 (b) 70°

Q11 150 Q12. 35.8

Q12 35.8 Q13 101°

Q14 54°

Q15



draw the perp. bisector of T_1T_2 and draw arc with B as centre and 5cm as radius. 'S'

Q16 nearer to 'BC' than 'AB'

Q17 $x = 60°$, $y = 40°$

Q18 60

Q19 $w = 54°$, $x = 126°$, $y = 60°$

Q20 Kite Q21 64.8

Q22 150°

Q23 (a) 19° (b) 138° (c) 90°

Q24 9.1

Q25 (a) 47° (b) 117° (c) 244°

Q26 Parallelogram

Q27 (a) 70° (b) 40°

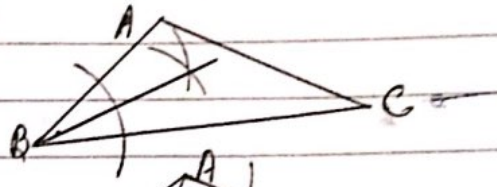
Q28 112°, 56°

Q29. More than 20m from D.
nearer to CD than to CB.

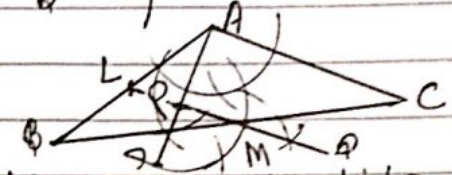
Q30 145°; Q31. 460 km^2

Q32 45,

Q33(a)



(b)

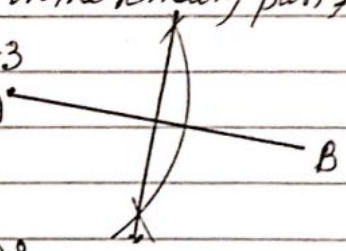


Draw a line DE || AC, at a distance of 3cm from AC. Draw AD ⊥ AC
Let AP = 3cm, Draw PQ ⊥ PA or PQ || AC
Then LM is the required locus.

Q34. $\angle ACB = 62°$,
Get $\angle AOB$ by using angle sum property in the isosceles $\triangle OAB$.
Then angle at the centre is double the angle in the remaining part of circle.

Q35 10.3

Q36



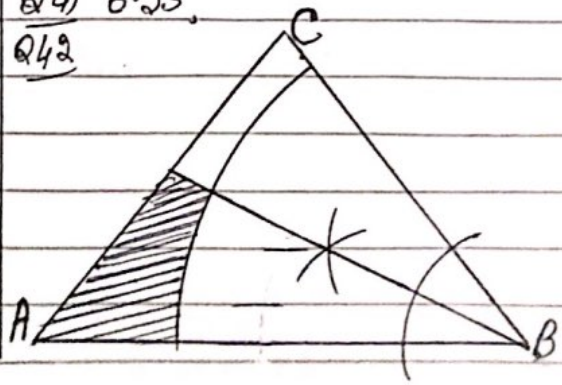
Q37. 110°

Q38 (a) 72° (b) 123°

Q39 42° Q40. 55° ; 125°

Q41 6.35.

Q42

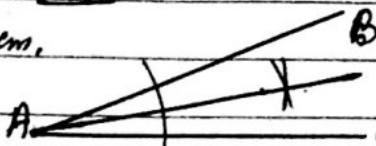


Answers

Q43. 25° Q44. 58

Q45. 46.3 cm.

Q46 (a)

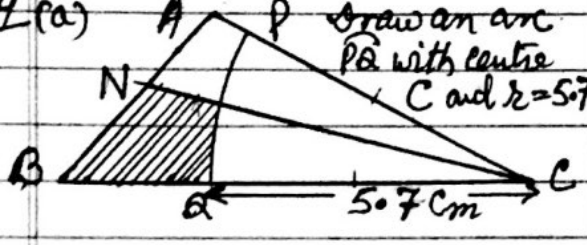


(b) Equidistant from the sides AC and AB of the angle BAC.

Q47. B (∵ opp. angles are supplementary.)

Q48 (a) 68° (b) 9

Q49 (a)



Draw an arc PQ with centre C and r = 5.7

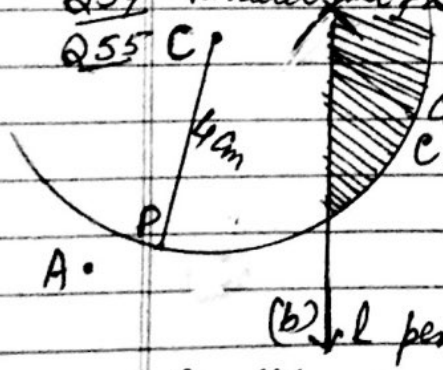
Q50 37° Q51 (a) 68° (b) 15

Q52 (a) 35° (b) 10.8

Q53 (a) 7.5 (b) 12

Q54 Parallel and ∠ same length.

Q55



(a) Draw a Circle with centre C and rad. 4cm.

(b) l perp bisector AB

Q56 Parallelogram.

Q57 6.24

Q58 4140

Q59 6

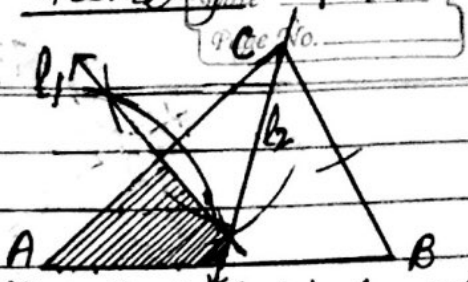
Q60 (a) 32 (b) 35

Q61 576

Q62 (a) 74° (b) 8.69 cm

Q63 (a) EBA (b) Z

Q64



(a) line 'l1' is the perp. bisector of AC.
line l2 is the bisector of angle ACB

(b) Shaded area.

Q65 (a) Triangles CBA and BDA are equilateral,

(b) 67 (c)(i) 39.3 (ii) 78.6

Q66. 8. Q67. 9.13

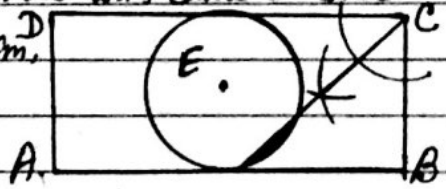
Q68 (a) 108° (b)(i) $-4/3$ (ii) -1

Q69 (a) 102 to 106

(b) Correct position of F.

Q70 160°.

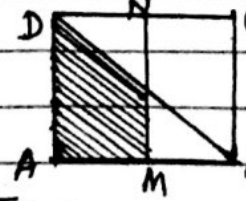
Q71 (a) Circle with centre E and radius 3cm.



Q72. 105°

Q73. (a) Equidistant from A and B (or C and D or AD and BC)

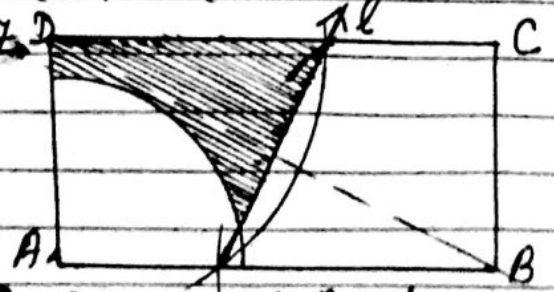
(b)



Q74. 10.5cm Q75. 40.3

Q76 (a) 95° (b) 77°

Q77



(a) Draw an arc centre A, rad = 5cm

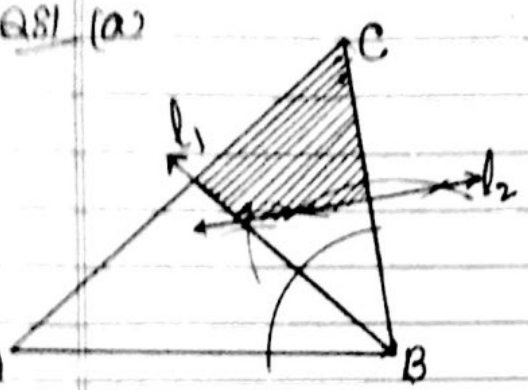
(b) Draw l' perp bisector of AD.

Answers

Q78. 125° Q79. 150

Q80 (a) 110° (b) 79°

Q81 (a)

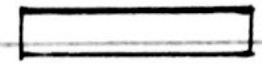


(i) l_1 is bisector of angle B.

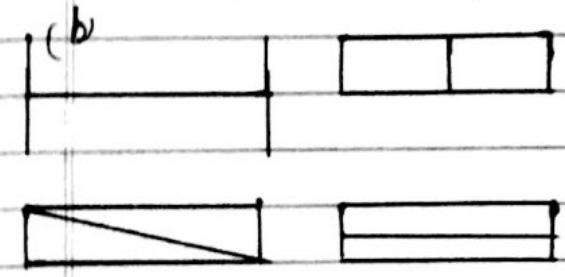
(ii) l_2 is perp. bisector of BC is the locus of points equidistant from B and C.

Q82 (a) 73.7 (b) 1.20.

Q83 (a)



(b)



Q84 170 Q85. Decagon

Q86 52°

Q87 (a) 24° (b) 24°

Q88 (a) Circle, radius 3 cm, centre A, not inside the rectangle.

(b)