

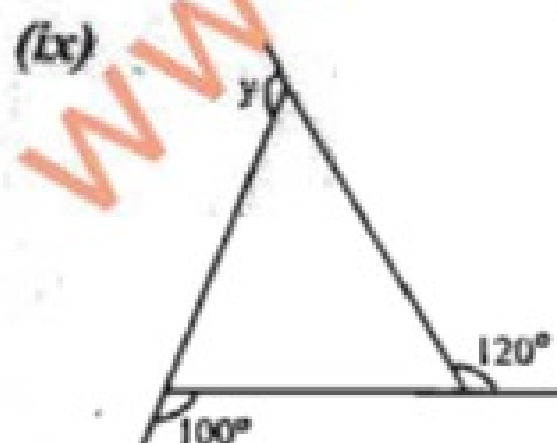
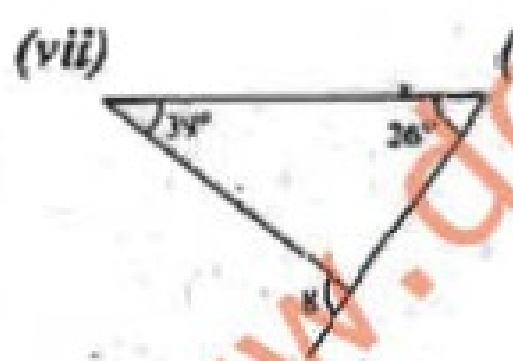
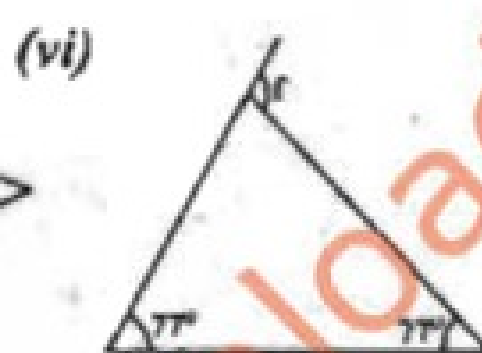
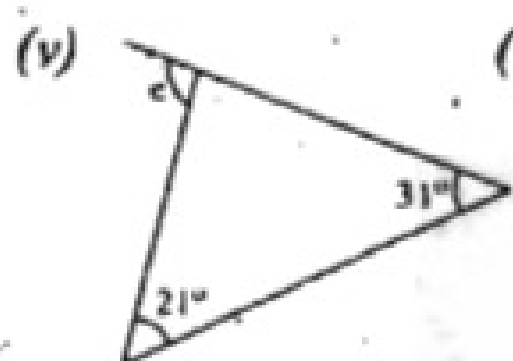
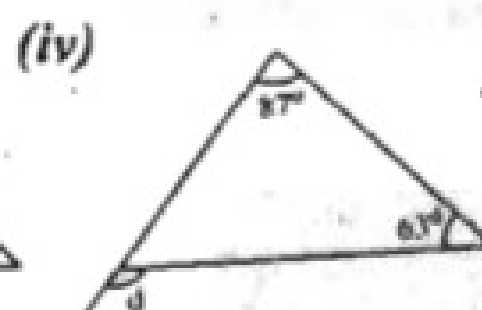
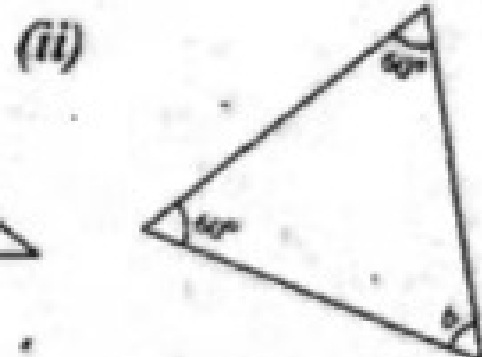
MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

Chapter 09

GEOMETRY

Exercise 9.1

1. Calculate unknown angles in the following. Figures are not drawn according to scale.



Ans.

(i) $a + 55 + 39 = 180$

$a = 180 - 55 - 39$

$a =$

(ii) $b + 60 + 60 = 180$

$b + 120 = 180$

$b = 180 - 120$

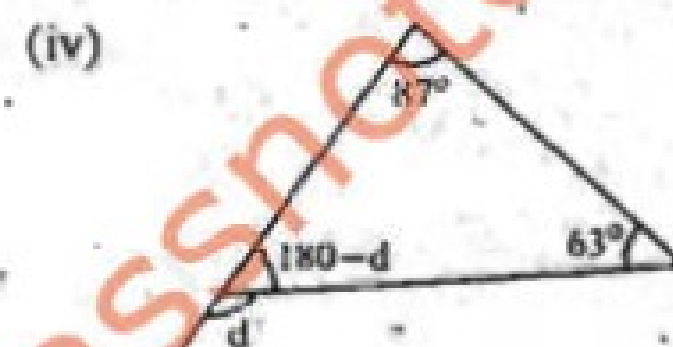
$b = 60^\circ$

(iii) $c + 51 + 46 = 180$

$c + 97 = 180$

$c = 180 - 97$

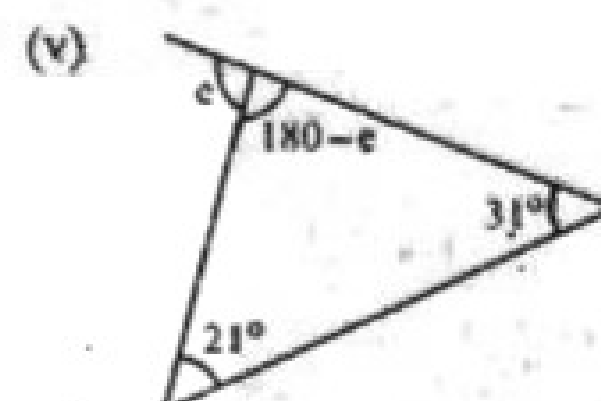
$c = 83$



$180 - d + 87 + 63 = 180$

$180 + 150 = 180 = d$

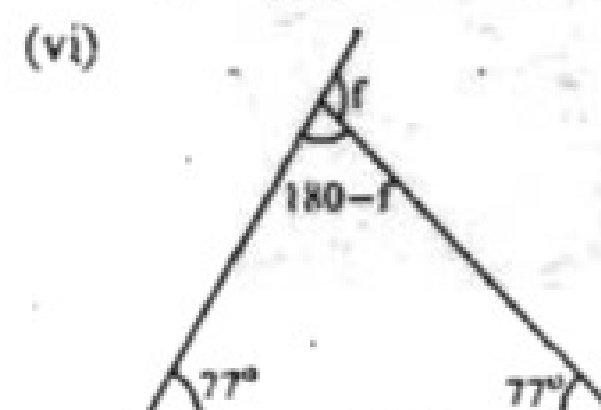
$150 = d$



$180 - e + 21 + 31 = 180$

$180 + 52 - 180 = e$

$e = 52$

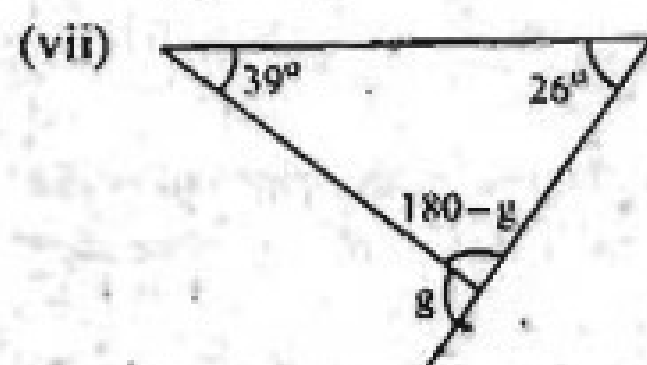


$180 - f + 77 + 77 = 180$

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

$$180 + 154 = 180 = f$$

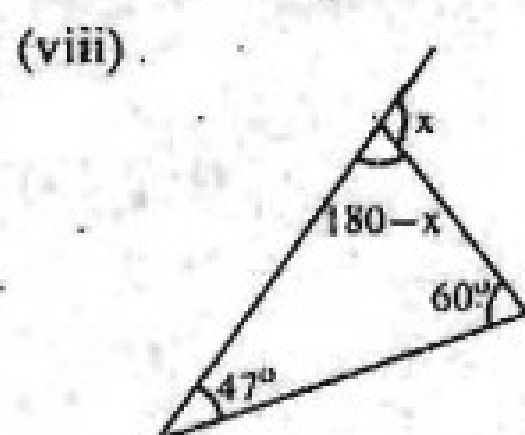
$$154 = f$$



$$180 - g + 39 + 26 = 180$$

$$180 + 65 - 180 = g$$

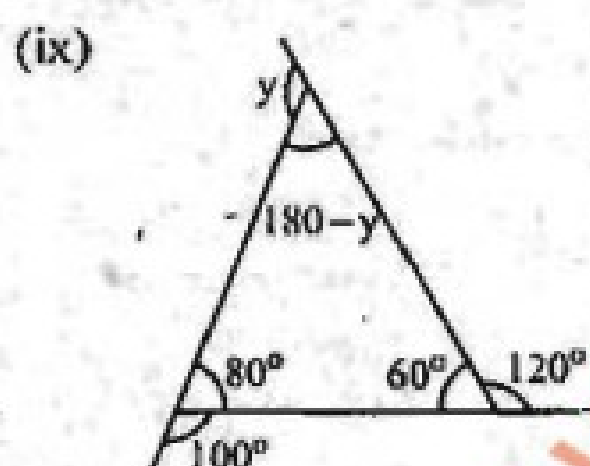
$$65^\circ = g$$



$$180 - x + 47 + 60 = 180$$

$$180 + 107 - 180 = x$$

$$107 = x$$

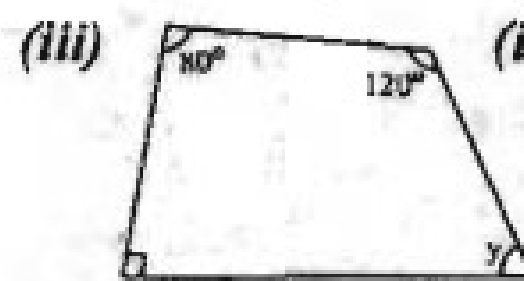
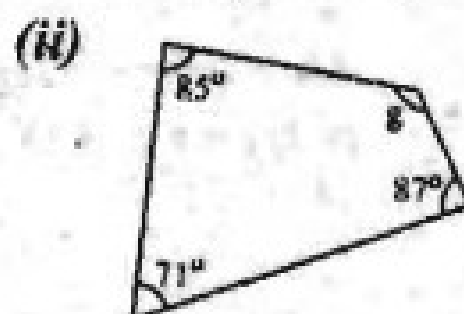


$$180 - y + 80 + 60 = 180$$

$$180 + 140 - 180 = y$$

$$140 = y$$

2. Calculate unknown angles in the following quadrilaterals. Figures are not drawn according to scale:



Ans.

(i) The shape is a quadrilateral with parallel opposite sides. Hence,

$$e = 125^\circ$$

$$f + 125 = 180$$

$$f = 55$$

(ii) $85 + 71 + 87 + g = 360$

$$243 + g = 360$$

$$g = 360 - 243$$

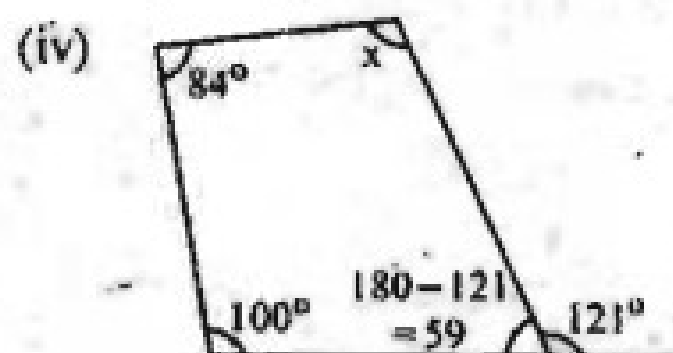
$$g = 117$$

(iii) $80 + 90 + 120 + y = 360$

$$290 + y = 360$$

$$y = 360 - 290$$

$$y = 70$$



$$84 + 100 + 59 + x = 360$$

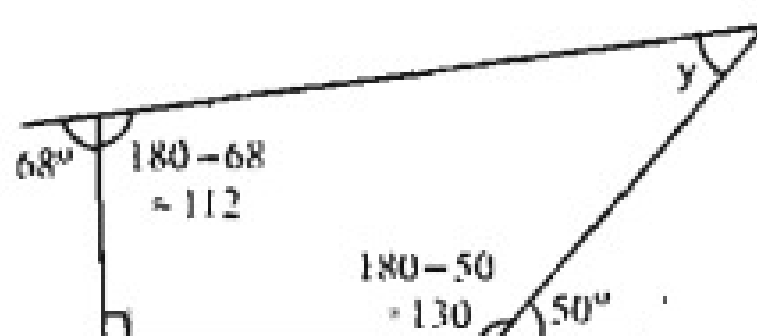
$$243 + x = 360$$

$$x = 360 - 243$$

$$x = 117$$

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

(v)



$$112 + 90 + 130 + y = 360$$

$$232 + y = 360$$

$$y = 360 - 232$$

$$y = 128$$

(vi) $125 + u = 180$

$$u = 180 - 125$$

$$u = 55$$

u and t are both angles made by same line on two parallel lines hence

$$u = t$$

$$55 = t$$

Exercise 9.2

1. Sum of measures of interior angles of a regular polygon is 720° .

(i) What is the name of that polygon?

(ii) Find its interior angle.

Ans.

(i) Sum of interior angles
 $= (\text{Number of sides} - 2) \times 180$

$$720 = (n - 2) \times 180$$

$$\frac{720}{180} = n - 2$$

$$4 = n - 2$$

$$4 + 2 = n$$

$$6 = n$$

Name of polygon is Hexagon.

(ii) Interior angle

$$= \frac{\text{Sum of interior angles}}{\text{number of sides}}$$

$$= \frac{720}{6} = 120^\circ$$

2. What is the sum of measures of exterior angles of a regular octagon?

Ans. Sum of measure of exterior angles of octagon is 360° .

3. What is measure of exterior angle of a regular pentagon at each vertex?

Ans. Exterior angle $= \frac{360}{\text{number of sides}}$
 $= \frac{360}{5}$
 $= 72^\circ$

4. Exterior angle of a regular polygon is 45° .

(i) What is the sum of interior angles of that polygon?

(ii) Which polygon is this?

Ans. Number of sides $= \frac{360}{\text{exterior angle}}$
 $= \frac{360}{45}$
 $= 8$

(i) Sum of interior angle

$$= (n - 2) \times 180$$

$$= (8 - 2) \times 180$$

$$= 6 \times 180$$

$$= 1080$$

(ii) Octagon.

5. The interior angle of a regular polygon is 144° .

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

(a) What is the measure of each of the exterior angles in the polygon?

(b) How many sides does the polygon has?

(c) What is the name of the polygon?

Ans.

(a) Exterior angle + interior angle = 180

$$x + 144 = 180$$

$$x = 180 - 144$$

$$x = 36$$

(b) Number of sides = $\frac{360}{\text{exterior angle}}$

$$= \frac{360}{36} = 10$$

(c) Decagon

6.(a) What is the formula for finding the number of diagonals from a vertex in a polygon?

(b) Find the number of diagonals from a vertex drawn in a:

(i) quadrilateral

(ii) pentagon

(iii) hexagon

(iv) decagon

Ans.

(a) (Number of sides = 3)

(b)(i) $n = 4$

$$\text{No. of diagonals} = n - 3$$

$$= 4 - 3 = 1$$

(ii) $n = 5$

$$\text{No. of diagonals} = n - 3$$

$$= 5 - 3 = 2$$

(iii) $n = 6$

$$\text{No. of diagonals} = n - 3$$

$$= 6 - 3 = 3$$

(iv) $n = 10$

$$\text{No. of diagonals} = n - 3$$

$$= 10 - 3 = 7$$

7. Find the measures of interior angle and central angle of a regular polygon with the following number of sides:

(i) 3 (ii) 4 (iii) 5 (iv) 6 (v) 8 (vi) 10

Ans.

$$\text{Interior angle} = \frac{\text{sum of interior angles}}{\text{number of sides}}$$

$$= \frac{(n - 2) \times 180}{n}$$

$$\text{Central angle} = \frac{360}{n}$$

(i) 3

$$\text{Interior angle} = \frac{(3 - 2) \times 180}{3}$$

$$= 60$$

$$\text{Central angle} = \frac{360}{3} = 120$$

(ii) 4

$$\text{Interior angle} = \frac{(4 - 2) \times 180}{4}$$

$$= \frac{(4 - 2) \times 180}{4}$$

$$= \frac{360}{4} = 90$$

$$\text{Central angle} = \frac{360}{4} = 90$$

(iii) 5

$$\text{Interior angle} = \frac{(5 - 2) \times 180}{5}$$

$$= \frac{(5 - 2) \times 180}{5}$$

$$= \frac{3 \times 180}{5} = 68$$

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

$$\begin{aligned}\text{Central angle} &= \frac{360}{n} \\ &= \frac{360}{5} = 72\end{aligned}$$

(iv) 6

$$\begin{aligned}\text{Interior angle} &= \frac{(n-2) \times 180}{n} \\ &= \frac{(6-2) \times 180}{6} \\ &= \frac{4 \times 180}{6} = 120\end{aligned}$$

$$\begin{aligned}\text{Central angle} &= \frac{360}{n} \\ &= \frac{360}{6} = 60\end{aligned}$$

(v) 8

$$\begin{aligned}\text{Interior angle} &= \frac{(n-2) \times 180}{n} \\ &= \frac{(8-2) \times 180}{8} \\ &= \frac{3 \times 180}{4} = 135\end{aligned}$$

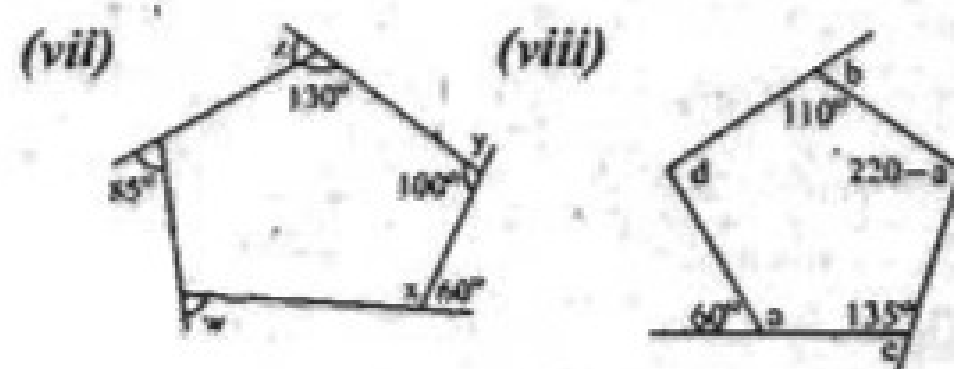
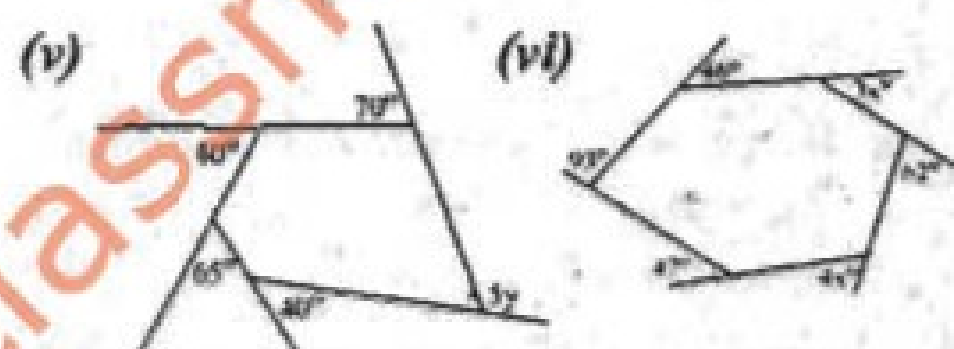
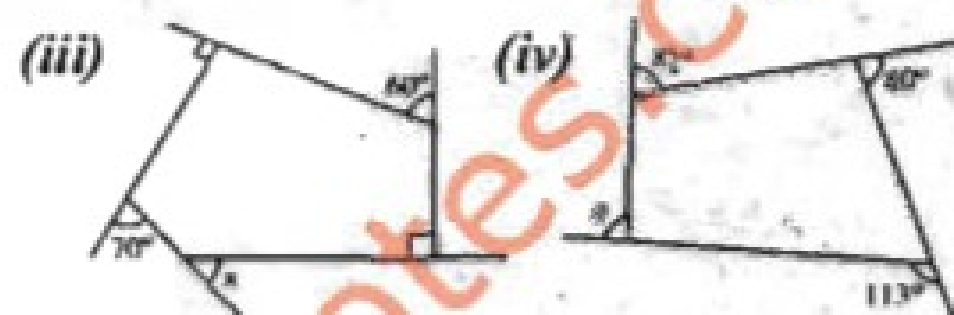
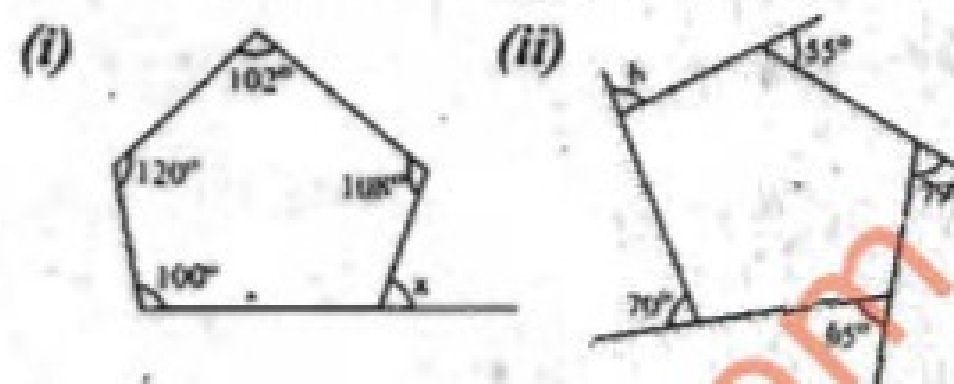
$$\text{Central angle} = \frac{360}{8} = 45$$

(vi) 10

$$\begin{aligned}\text{Interior angle} &= \frac{(n-2) \times 180}{n} \\ &= \frac{(10-2) \times 180}{10} \\ &= \frac{8 \times 180}{10} = 144^\circ\end{aligned}$$

$$\begin{aligned}\text{Central angle} &= \frac{360}{n} \\ &= \frac{360}{10} = 36^\circ\end{aligned}$$

8. Find the unknown quantities in the following. Figures are not drawn according to scale.



Ans.

(i) Sum of interior angles = $(n-2) \times 180$
 $= (5-2) \times 180$
 $= 3 \times 180$
 $= 540$

$$120 + 102 + 108 + 100 + (180 - x) = 540$$

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

$$430 + 180 - x = 540$$

$$610 - 540 = x$$

$$70 = x$$

(ii) Sum of exterior angles = 360

$$b + 55 + 79 + 70 + 65 = 360$$

$$b + 269 = 360$$

$$b = 360 - 269$$

$$b = 91$$

(iii) Sum of exterior angles = 360

$$x + 90 + 90 + 70 + 60 = 360$$

$$x + 310 = 360$$

$$x = 360 - 310$$

$$x = 50$$

(iv) Sum of exterior angles = 360

$$82 + 80 + 113 + a = 360$$

$$275 + a = 360$$

$$a = 360 - 275$$

$$a = 85$$

(v) Sum of exterior angles = 360

$$70 + 60 + 65 + 40 + 5y = 360$$

$$235 + 5y = 360$$

$$5y = 360 - 235$$

$$5y = 125$$

$$y = \frac{125}{5} = 25$$

(vi) $93 + 46 + 3x + 62 + 4x + 47 = 360$

$$248 + 7x = 360$$

$$7x = 360 - 248$$

$$x = \frac{112}{7}$$

$$x = 16$$

(vii) $x = 180 - 60$

$$x = 120$$

$$y = 180 - 100 = 80$$

$$z = 180 - 130 = 50$$

Sum of exterior angles = 360

$$z + y + 60 + w + 85 = 360$$

$$50 + 80 + 60 + w + 85 = 360$$

$$275 + w = 360$$

$$w = 360 - 275$$

$$w = 85$$

(ix) Sum of interior angles = $(n - 2) \times 180$

$$= (6 - 2) \times 180$$

$$= 4 \times 180$$

$$= 720$$

$$120 + 7x - 6 + 5x + 14 + 8x + 4x - 8 + 6x = 720$$

$$120 - 6 + 14 - 8 + 7x + 5x + 8x + 4x + 6x = 720$$

$$120 + 30x = 720$$

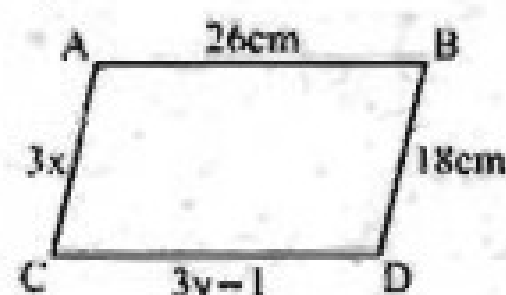
$$30x = 720 - 120$$

$$x = \frac{600}{30}$$

$$x = 20$$

Exercise 9.3

1. In parallelogram ABCD. Find x and y .



Ans. $26 = 3y - 1$ $3x = 18$

$$26 + 1 = 3y$$

$$x = \frac{18}{3}$$

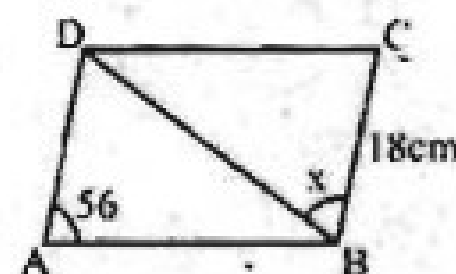
$$\frac{27}{3} = y$$

$$x = 6$$

$$9 = y$$

2. ABCD is a rhombus with $\angle DAB = 56^\circ$. Determine $\angle DBC$.

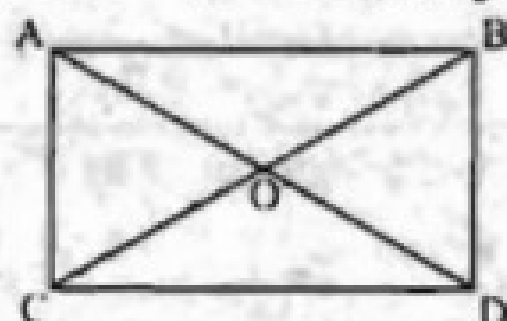
Ans.



MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

$$\begin{aligned}\angle DAB &= \angle DCB \\ 56 &= \angle DCB \\ \angle DBC &= \angle CDB \\ \angle DCB + \angle DBC + \angle CDB &= 180 \\ 56 + x + x &= 180 \\ 56 + 2x &= 180 \\ 2x &= 180 - 56 \\ 2x &= 124 \\ x &= \frac{124}{2} \\ x &= 62^\circ\end{aligned}$$

3. In the given figure, ABCD is a rectangle and its diagonals meet at O. Find x, if $OB = 2x + 4$ and $OC = 3x + 1$. Also find BD.



Ans. $OB = OC$

$$\begin{aligned}2x + 4 &= 3x + 1 \\ 4 - 1 &= 3x - 2x \\ 3 &= x \\ BD &= 2OB \\ BD &= 2(2x + 4) \\ BD &= 2(2(3) + 4) \\ \Rightarrow BD &= 2(6 + 4) = 20\end{aligned}$$

4. Two adjacent angles of a parallelogram are $3x - 5$ and $3x + 11$. Find the angles of the parallelogram.

Ans. Sum of adjacent = 180

Angles of parallelogram

$$\begin{aligned}3x - 5 + 3x + 11 &= 180 \\ 6x + 6 &= 180 \\ 6x &= 180 - 6\end{aligned}$$

$$\begin{aligned}x &= \frac{174}{6} \\ x &= 29 \\ \begin{array}{l|l} 3x - 5 & 3x + 11 \\ \hline = 3(29) - 5 & = 3(29 + 11) \\ = 87 - 5 = 82 & = 87 + 11 = 98 \end{array}\end{aligned}$$

5. One side of a parallelogram is 4.8cm and the other side is $1\frac{1}{2}$ times of this side. Find the perimeter of the parallelogram.

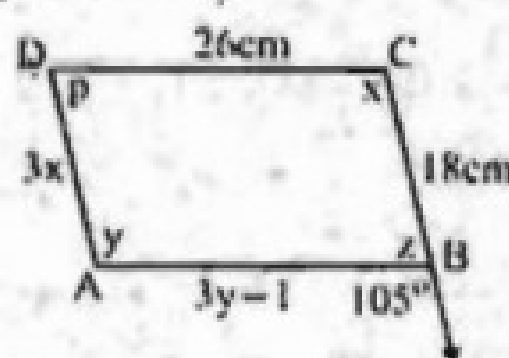
Ans.



$$\begin{aligned}x &= 1\frac{1}{2} \times 4.8 \\ &= \frac{3}{2} \times \frac{48}{10} = 7.2\end{aligned}$$

$$\begin{aligned}\text{Parameter} &= 4.8 + 4.8 + x + x \\ &= 9.6 + 2x \\ &= 9.6 + 2(7.2) \\ &= 9.6 + 14.4 = 24\end{aligned}$$

6. In the given figure, ABCD is a parallelogram. Find the value of x, y, z and p.



Ans. $z + 105 = 180$

$$\begin{aligned}z &= 180 - 105 \\ z &= 75 \\ \text{Sum of adjacent angles} &= 180 \\ z + x &= 180\end{aligned}$$

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

$$75 + x = 180$$

$$x = 180 - 75$$

$$x = 105$$

$$z = p$$

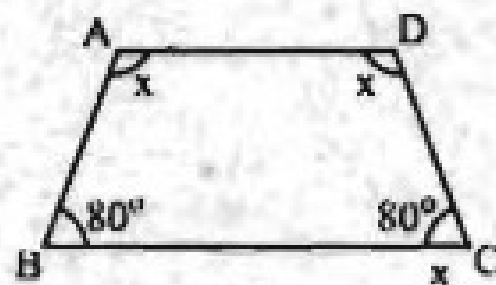
$$75 = p$$

$$y = x$$

$$y = 105$$

7. In a trapezium $ABCD$, $AB = DC$ and $\angle B = \angle C = 80^\circ$. Find other two angles. Also find x if sum of exterior angles is $5x + 10$ degree.

Ans.



$$x + x + 80 + 80 = 360$$

$$2x + 160 = 360$$

$$2x = 360 - 160$$

$$x = \frac{200}{2}$$

$$x = 100$$

$$\text{Sum of exterior angles} = \frac{360}{\text{number of sides}}$$

$$5x + 10 = \frac{360}{4}$$

$$5x + 10 = 90$$

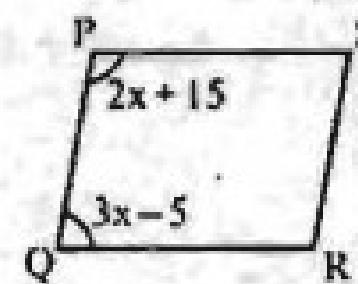
$$5x = 90 - 10$$

$$x = \frac{80}{5}$$

$$x = 16$$

8. In a rhombus $PQRS$, if $\angle P = (3x - 5)^\circ$ and $\angle Q = (2x + 15)^\circ$, then find the value of x . Also find these angles.

Ans.



$$2x + 15 + 3x - 5 = 180$$

$$5x - 10 = 180$$

$$5x = 180 + 10$$

$$x = \frac{190}{5}$$

$$x = 38^\circ$$

9. If larger angle of a parallelogram is 24° more than the smaller angle then, find both angles.

Ans.



$$x + x + 24 = 180$$

$$2x + 24 = 180$$

$$2x = 180 - 24$$

$$x = \frac{156}{2}$$

$$x = 78$$

$$\text{Smaller angle} = 78$$

$$\text{Larger angle} = x + 24$$

$$= 78 + 24 = 102$$

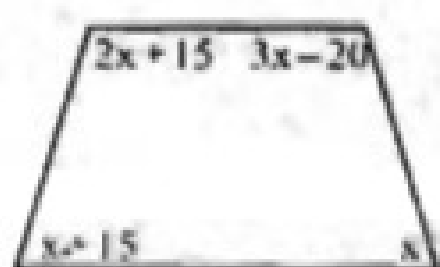
10. How many shapes have been combined to construct this parallelogram? Name these figures.



Ans. It consists of triangle, square and parallelogram.

11. Find the measure of each angle of trapezium.

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)



Ans. $x + x + 15 + 2x + 15 + 3x - 20 = 360$

$7x + 10 = 360$

$x = \frac{350}{7}$

$x = 50$

$x = 50$

$3x - 20 = 3(50) - 20 = 150 - 20 = 130$

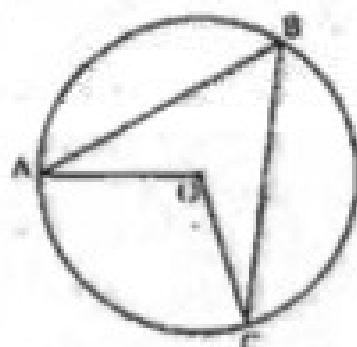
$2x + 15 = 2(50) + 15 = 100 + 15 = 115$

$x + 15 = 50 + 15 = 75$

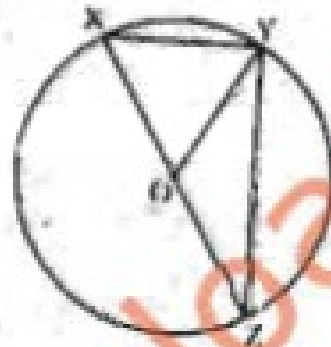
Exercise 9.4

1. Identify the radii, diameters, chords and centre of the following circles.

(i)



(ii)



(iii)



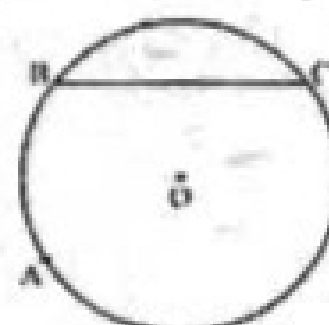
(iv)



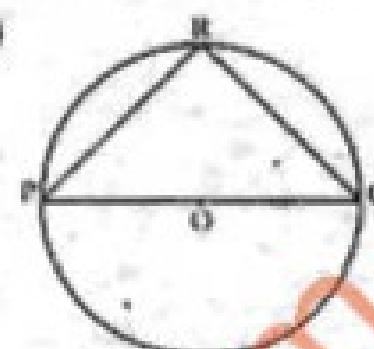
Ans.	Radius	Diameter	Chords	Centres
(i)	OA, OB	—	AC, BC	O
(ii)	PX, PY, PZ	XZ	XY, YZ	P
(iii)	OA, OB, OC	AD	AB, AC, BC	O
(iv)	PA, PD, PB	AD	AB, BC, AC	P

2. Identify minor arcs, major arcs and semi circles in the following:

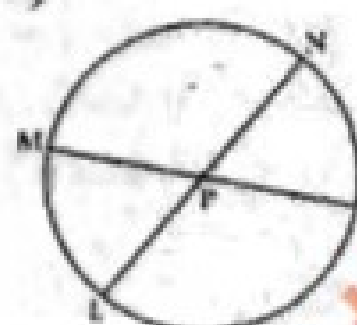
(i)



(ii)



(iii)



(iv)



Ans.	Minor arc	Major arcs	Semi circles
(i)	$\widehat{BC}$	$\widehat{BAC}$	—
(ii)	$\widehat{PR}$, $\widehat{RQ}$	$\widehat{PQR}$, $\widehat{QPR}$	$\widehat{PQR}$
(iii)	$\widehat{MN}$, $\widehat{NO}$, $\widehat{OL}$, $\widehat{LM}$	$\widehat{MNL}$, $\widehat{NOM}$, $\widehat{OLN}$, $\widehat{LMO}$	$\widehat{LMN}$, $\widehat{MNO}$, $\widehat{NOL}$, $\widehat{OLM}$
(iv)	$\widehat{BC}$, $\widehat{CA}$, $\widehat{AD}$, $\widehat{DB}$	$\widehat{CAB}$, $\widehat{ADC}$, $\widehat{DBA}$, $\widehat{BCD}$	$\widehat{BCA}$, $\widehat{CAD}$, $\widehat{ADB}$, $\widehat{DBC}$

Review Exercise 9

1. Encircle the correct answer in the following:

- (i) Which of the following polygons cannot be regular?

- (a) kite (b) square
(c) pentagon (d) hexagon

- (ii) Interior angle of a regular hexagon is:

- (a) 180° (b) 135°
(c) 120° (d) 109°

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

(iii) Interior angle of a regular polygon is 144° . How many sides does the polygon has?

- (a) 5 (b) 6
(c) 8 ✓(d) 10

(iv) A polygon in which all the sides are equal is called:

- ✓(a) regular (b) iregular
(c) rectangular (d) proper

(v) Sum of measures of interior angles of a polygon having n sides is:

- (a) $(n-4)180^\circ$ ✓(b) $(n-2)180^\circ$
(c) $(n-2)90^\circ$ (d) $(n+2)180^\circ$

(vi) Sum of measures of exterior angles of a polygon having n sides is:

- (a) $(n-44)180^\circ$ (b) $(n-2)180^\circ$
✓(c) $(n-2)90^\circ$ (d) $(n+2)180^\circ$

(vii) Which triangle is a regular polygon?

- (a) isosceles (b) scalene
✓(c) equilateral (d) right angled

(viii) Which polygon is concave?

- (a)  (b) 
(c)  ✓(d) 

(ix) Interior and exterior angles at any vertex of polygon sum to

- ✓(a) 180° (b) 360°
(c) 90° (d) 720°

(x) The two diagonals of square are:

- (a) parallel ✓(b) equal
(c) unequal (d) converging

(xi) Diagonals of some quadrilaterals are unequal and perpendicular to

each other. Which one of the following is true?

- (a) square, rectangle
✓(b) rhombus, kite
(c) rhombus, square
(d) rhombus, rectangle

(xii) The two diagonals of _____ intersect each other perpendicular.

- (a) parallelogram (b) rectangle
(c) trapezium ✓(d) kite

(xiii) A parallelogram whose diagonals bisect each other and are equal, is called a:

- ✓(a) square (b) kite
(c) trapezium (d) rhombus

(xiv) A line segment joining any point on a circle to its center is called:

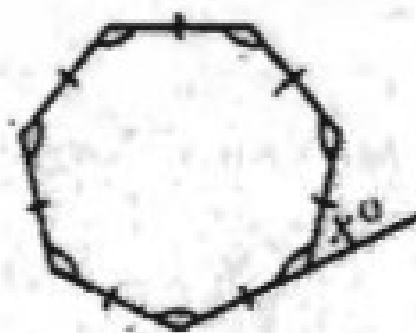
- (a) diameter (b) centre
✓(c) radial segment (d) chord

(xv) The longest chord of a circle is called:

- (a) radius (b) chord
✓(c) diameter (d) arc

2.(i) Find the exterior and interior angles of given heptagon.

(ii) What is the sum of interior angles of heptagon?



Ans. (i) Exterior angle = $\frac{360}{\text{number of sides}}$
= $\frac{360}{7}$

MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

$$= 51.43$$

$$\text{Interior angle} + \text{exterior angle} = 180$$

$$\text{Interior angle} + 51.43 = 180$$

$$\text{Interior angle} = 180 - 51.43$$

$$= 128.57$$

(ii) Sum of interior angles = $(n - 2) \times 180$

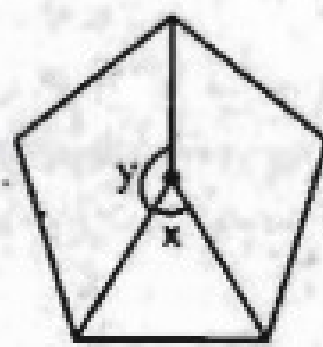
$$= (7 - 2) \times 180$$

$$= 5 \times 180$$

$$= 900$$

3.(i) Interior angle of a regular polygon is 135° . What is the central angle of that polygon?

(ii) What are the values of x and y in the following figure?



Ans. (i) Central angle = $180 - \text{interior angle}$

$$\text{Central angle} = 180 - 135$$

$$= 45$$

(ii) It's a 5-sided polygon, hence

$$\text{Central angle} = \frac{360}{5}$$

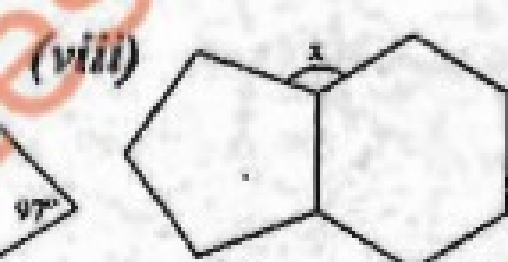
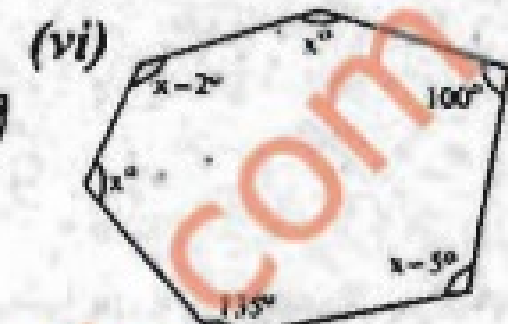
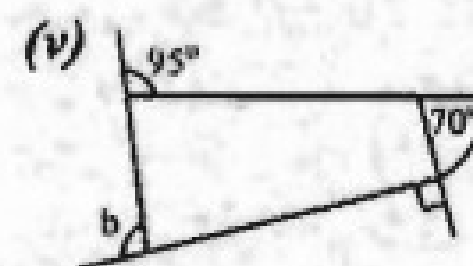
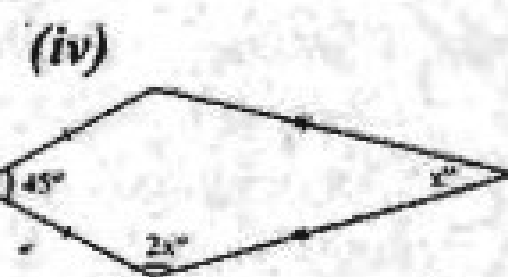
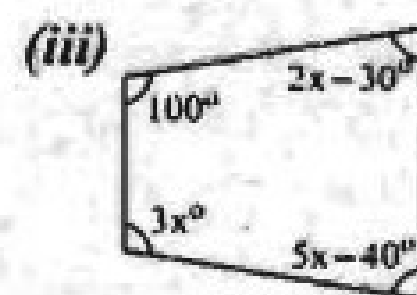
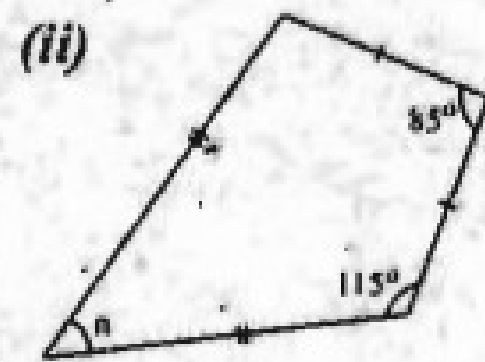
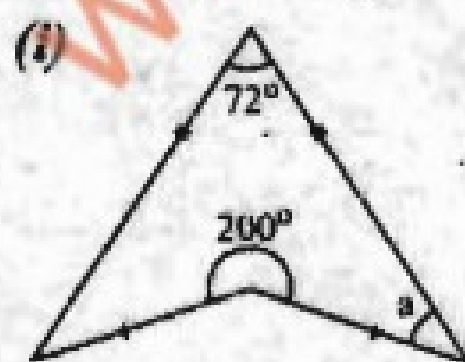
$$x = 72$$

$$\Rightarrow 2x = y$$

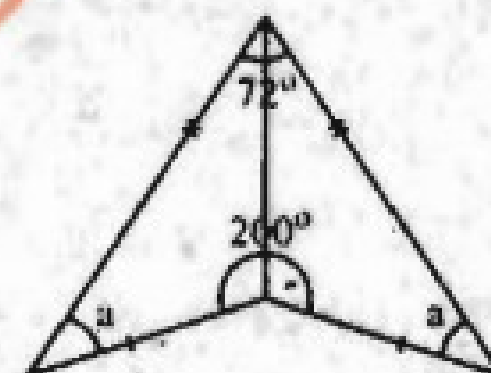
$$2(72) = y$$

$$144 = y$$

4. Find unknown angles in the following:



Ans. (i)



It's a quadrilateral

$$72 + 200 + 2a = 360$$

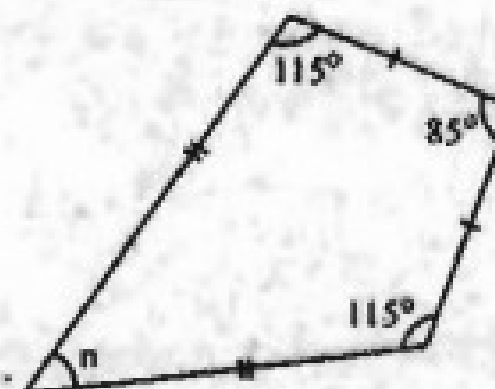
$$272 + 2a = 360$$

$$2a = 360 - 272$$

$$a = 88$$

$$a = 44$$

(ii)



$$115 + 115 + 85 + n = 360$$

$$315 + n = 360$$

$$n = 360 - 315$$

$$n = 45^\circ$$

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$$(iii) \quad 100 + 2x - 30 + 5x - 40 + 3x = 360$$

$$100 - 30 - 40 + 2x + 5x + 3x = 360$$

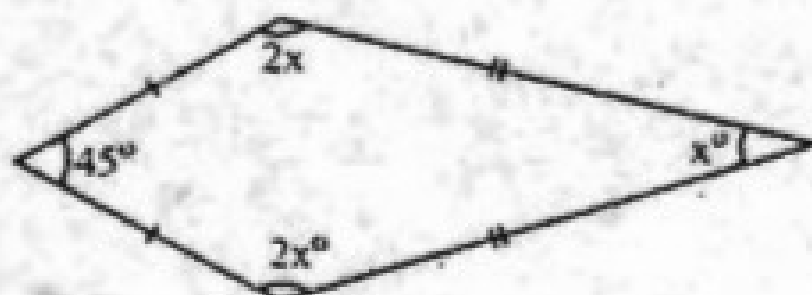
$$30 + 10x = 360$$

$$10x = 360 - 30$$

$$x = \frac{330}{10}$$

$$x = 33$$

(iv)



$$45 + 2x + 2x + x = 360$$

$$445 + 5x = 360$$

$$5x = 360 - 45$$

$$x = \frac{315}{5}$$

$$x = 63$$

(v) Sum of exterior angles = 360

$$95 + 90 + 70 + b = 360$$

$$255 + b = 360$$

$$b = 360 - 255$$

$$b = 105$$

$$\text{Sum of interior angles} = (b - 2) \times 180$$

$$(vi) \quad x + 100 + x - 5 + 135 + x + x - 2 = 720$$

$$x + x + x + x + 100 - 5 + 135 - 2 = 720$$

$$4x + 228 = 720$$

$$4x = 720 - 228$$

$$x = \frac{492}{4}$$

$$x - 2 = 123 - 2$$

$$x - 2 = 121$$

$$x - 5 = 123 - 5$$

$$x - 5 = 118$$

(vii) Sum of interior angles = $(5 - 2) \times 180$

$$= 3 \times 180$$

$$x + x + 16 + 102 + x - 5 + 97 = 540$$

$$3x + 16 + 102 - 5 + 97 = 540$$

$$3x + 210 = 540$$

$$3x = 540 - 210$$

$$3x = 330$$

$$x = \frac{330}{3}$$

$$x = 110$$

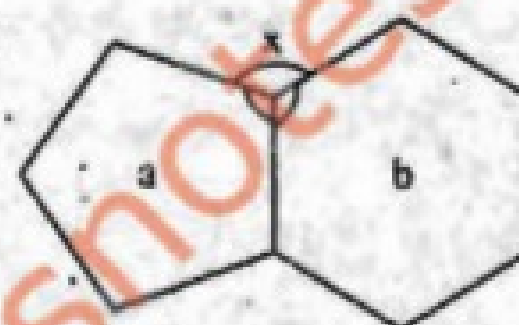
$$x + 16 = 110 + 16$$

$$x + 16 = 126$$

$$x - 5 = 110 - 5$$

$$x - 5 = 105$$

(viii)



Sum of interior angles of pentagon

$$= (5 - 2) \times 180$$

$$= 3 \times 180$$

$$= 540$$

$$\text{Interior angle (a)} = \frac{540}{5}$$

$$= 108$$

Sum of interior angles of hexagon

$$= (6 - 2) \times 180$$

$$= 4 \times 180$$

$$= 720$$

$$\text{Interior angle (b)} = \frac{720}{6}$$

$$= 120$$

$$x + a + b = 360$$

$$x + 108 + 120 = 360$$

$$x + 228 = 360$$

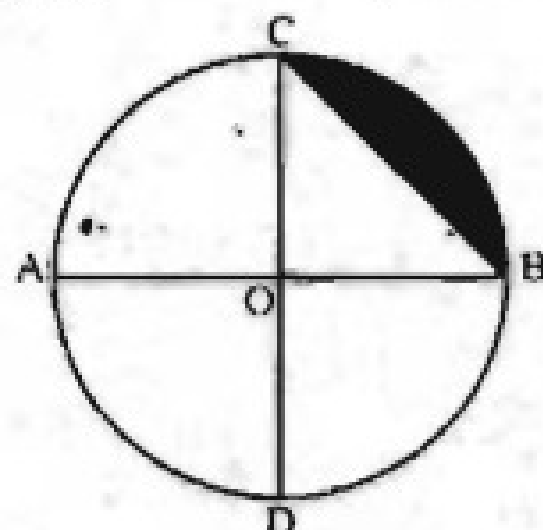
$$x = 360 - 228$$

$$x = 132$$

5. Identify the centre, radii, diameter, chord, minor arc, major

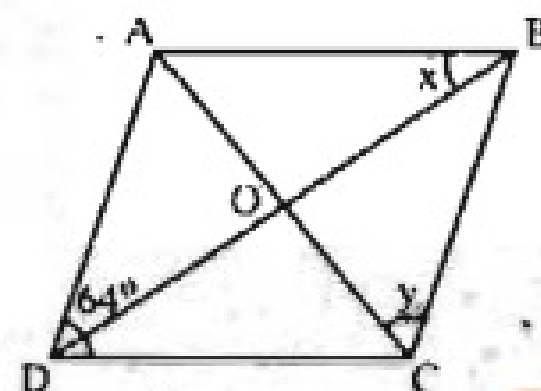
MATHEMATICS NOTES FOR 7TH CLASS (FOR ISLAMABAD)

arc, semi – circle, minor segment, major segment in the following figure.

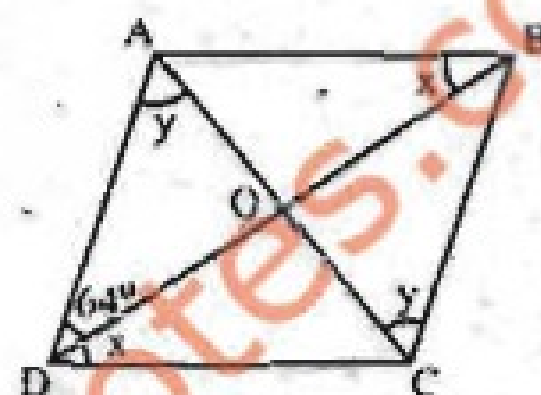


Ans. Centre O, Radii $\overline{OA}$, $\overline{OB}$, $\overline{OC}$, $\overline{OD}$
 Diameter $\overline{AB}$, $\overline{CD}$, chord $\overline{BC}$
 Minor arc $\overline{AC}$, $\overline{CB}$, $\overline{BD}$, $\overline{DA}$.
 Major arc $\overline{CBA}$, $\overline{BDC}$, $\overline{DAB}$, $\overline{ACD}$
 Semi circle ACB, CBD, BDA, DAC
 Minor segment shaded part of circle.
 Major segment unshaded part of circle.

6. In the figure, ABCD is a rhombus. Find x and y.



Ans.



$$x = \frac{64}{2}$$

$$x = 32$$

$$y + 32 + 90 = 180$$

$$y = 180 - 90 - 32 = 58$$