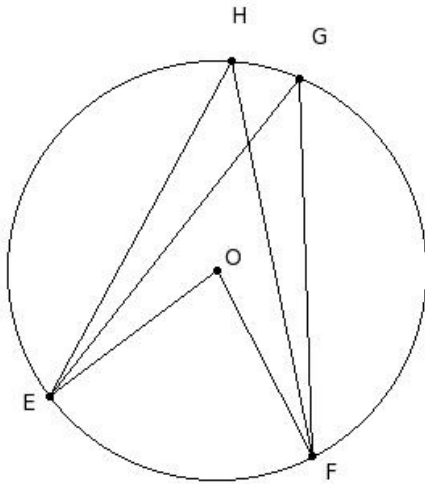




1. O is the centre of the circle. If $\angle EOF = 80^\circ$, find the angle $\angle H$



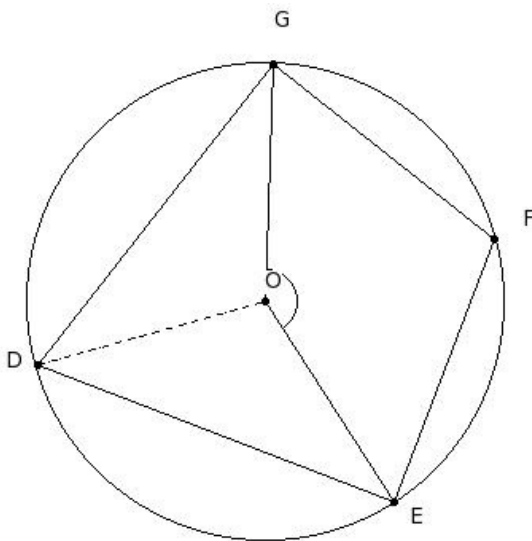
- (i) 55° (ii) 45° (iii) 40° (iv) 50° (v) 70°

2. Which of the following statements are true?

- a) An isosceles trapezium is cyclic.
- b) Either pair of opposite angles of a cyclic quadrilateral are supplementary.
- c) The exterior angle of a quadrilateral and its interior opposite angle are supplementary.
- d) A quadrilateral in which the diagonals are equal and bisect each other is cyclic.
- e) All parallelograms are cyclic.

- (i) {c,e,d} (ii) {c,a,b} (iii) {a,b,d} (iv) {c,a} (v) {e,b}

3. O is the centre of the circle. If $\angle EOG = 145^\circ$, find $\angle D$



- (i) 102.5° (ii) 82.5° (iii) 77.5° (iv) 87.5° (v) 72.5°

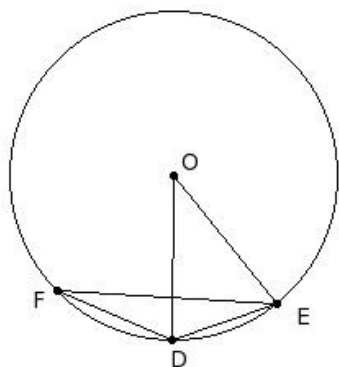
4. An arc subtends 152° in its alternate segment. The arc is

- (i) semi-circle (ii) major arc (iii) major segment (iv) minor arc (v) quadrant

5. Circles having common centre are called

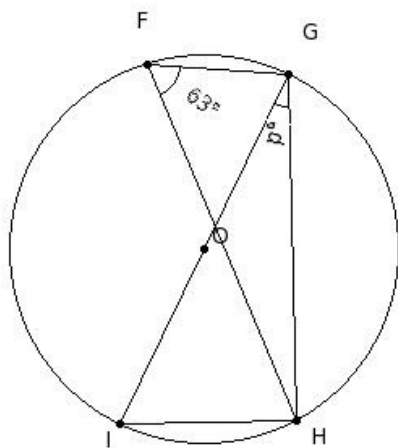
- (i) intersecting circles (ii) similar circles (iii) concentric circles (iv) congruent circles

6. In the given figure, DE is a side of regular 8-sided polygon and DF is a side of regular 9-sided polygon inscribed in a circle with centre O. Find $\angle DEF$



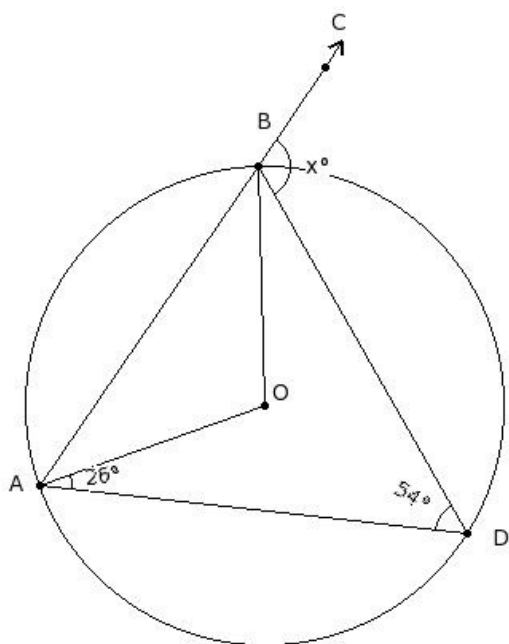
- (i) 30° (ii) 35° (iii) 50° (iv) 20° (v) 25°

7. In the given figure, O is the centre of the circle and GI is a diameter. If $\angle HFG = 63^\circ$, find $\angle HGI$



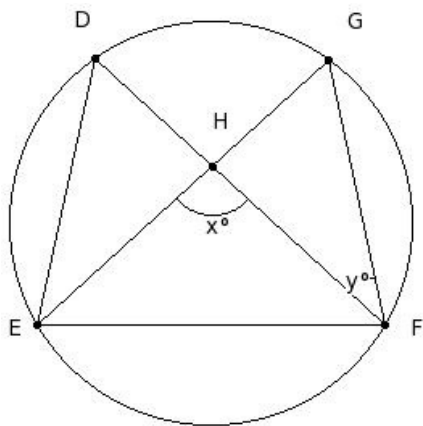
- (i) 27° (ii) 42° (iii) 32° (iv) 37° (v) 57°

8. In the given figure, O is the centre of the circle. If $\angle ADB = 54^\circ$ and $\angle OAD = 26^\circ$, find $\angle CBD$



- (i) 126° (ii) 121° (iii) 116° (iv) 131° (v) 146°

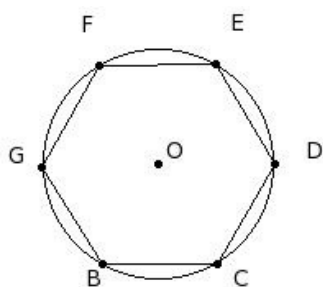
9. In the given figure, chords DF & EG meet at H. Given $x = 96^\circ$ and $y = 36^\circ$, find $\angle EDF$



- (i) 65° (ii) 60° (iii) 75° (iv) 70° (v) 90°

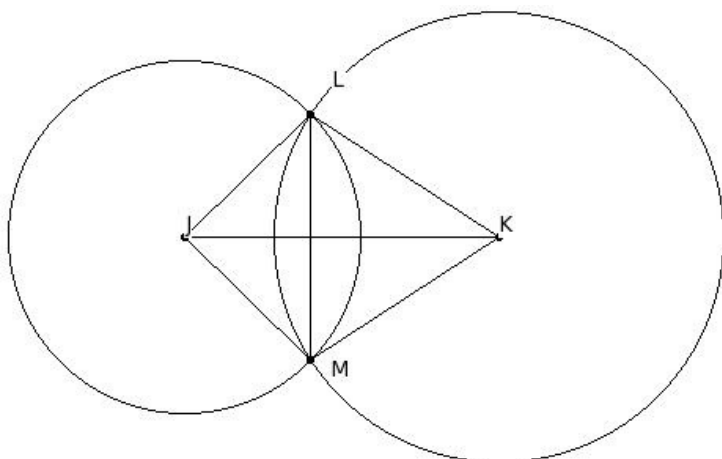
10. In the given figure, BCDEFG is a regular hexagon inscribed in a circle with centre O. Which of the following are true?

- a) $\angle BDC = 60^\circ$
 b) $\angle CFD = 30^\circ$
 c) $\angle GED = 90^\circ$
 d) $\angle COE = 120^\circ$
 e) $\angle BOG = 60^\circ$



- (i) {a,c} (ii) {a,e,b} (iii) {a,b} (iv) {b,c,d,e} (v) {a,d}

11. In the given figure, two circles of radii $JL = 11.2$ cm & $KL = 14.3$ cm intersect at L & M. The distance between the centres $JK = 20$ cm, find the length of LM



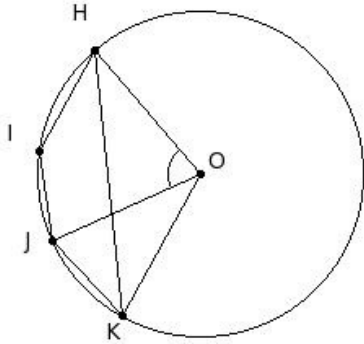
- (i) 17.63 cm (ii) 15.63 cm (iii) 14.63 cm (iv) 13.63 cm (v) 16.63 cm

12. Which of the following statements are true?

- a) A sector is the area enclosed by two radii and a chord.
- b) The area enclosed by a chord and its minor arc is called minor segment.
- c) A circle divides the plane on which it lies into three parts.
- d) The area enclosed by a chord and its major arc is called major segment.
- e) The diameter divides the circle into two unequal parts.

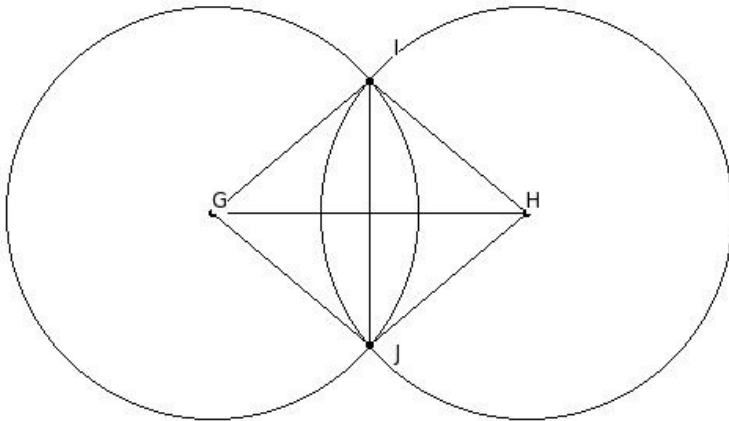
(i) {a,e,d} (ii) {e,c} (iii) {a,b} (iv) {b,c,d} (v) {a,b,c}

13. O is the centre of the circle. If Arc HJ = 2 Arc JK and $\angle HOJ = 74^\circ$, find $\angle KHJ$



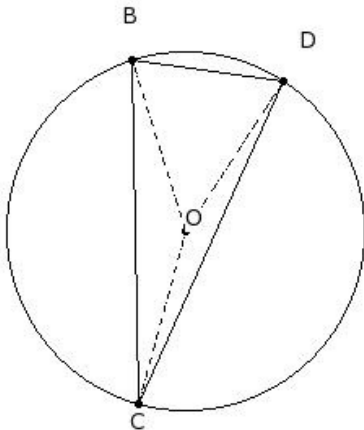
(i) 28.5° (ii) 23.5° (iii) 18.5° (iv) 33.5° (v) 48.5°

14. In the given figure, G and H are centres of two circles with equal radii intersecting at I and J. If $GH = 20$ cm and $IJ = 16.8$ cm, find the radii of the circles



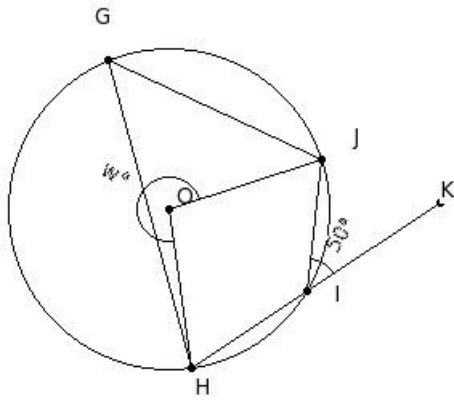
(i) 14.06 cm (ii) 12.06 cm (iii) 13.06 cm (iv) 11.06 cm (v) 15.06 cm

15. $\triangle BCD$ is inscribed in a circle with centre O. If $\angle BOC = 147^\circ$ and $\angle COD = 162^\circ$, find $\angle CDB$



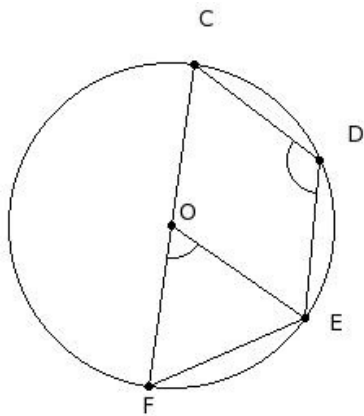
(i) 73.5° (ii) 78.5° (iii) 83.5° (iv) 103.5° (v) 88.5°

16. In the given figure, O is the centre of the circle. If $\angle KIJ = 50^\circ$, find reflex $\angle JOH$



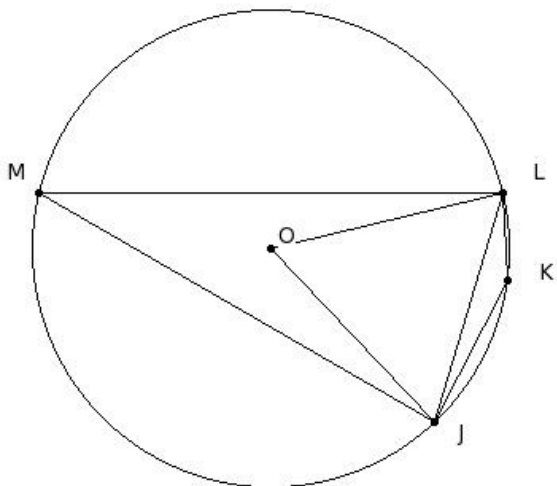
- (i) 290° (ii) 275° (iii) 270° (iv) 260° (v) 265°

17. O is the centre of the circle. If $\angle CDE = 121.5^\circ$, find $\angle EOF$



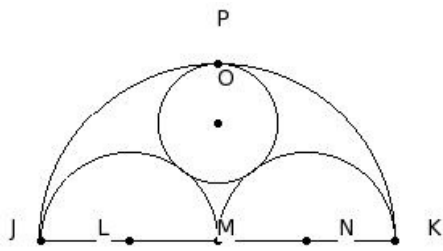
- (i) 78° (ii) 68° (iii) 63° (iv) 93° (v) 73°

18. In the given figure, JL is a chord which is equal to the radius of the circle. Find $\angle M$ and $\angle K$



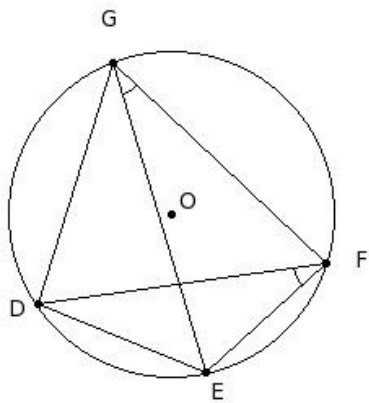
- (i) 45° & 135° (ii) 40° & 140° (iii) 60° & 120° (iv) 30° & 150° (v) 50° & 130°

- JK is a line segment and M is its mid-point. Three semi-circles are drawn with JM , MK and JK as diameters. L , N and M respectively are the centres of these semi-circles. A new circle is drawn touching these three semi-circles. Find its radius, given JL = 6 cm



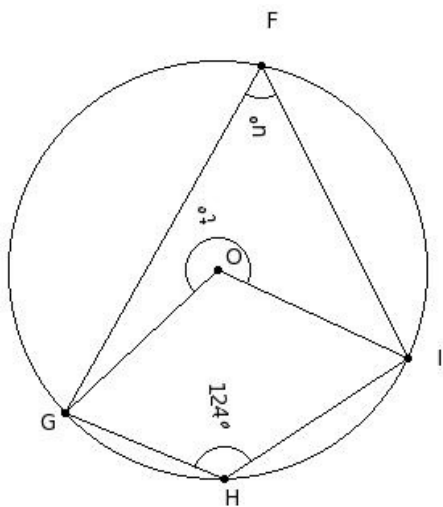
- (i) 5.00 cm (ii) 3.00 cm (iii) 4.00 cm (iv) 2.00 cm (v) 6.00 cm

20. In the given figure, DEFG is a cyclic quadrilateral. If $\angle DFE = 34^\circ$ and $\angle FGE = 30^\circ$, find $\angle DEF$



- (i) 121° (ii) 146° (iii) 126° (iv) 116° (v) 131°

21. In the given figure, O is the centre of the circle. If $\angle GHI = 124^\circ$, find $\angle IOG + \angle GFI$

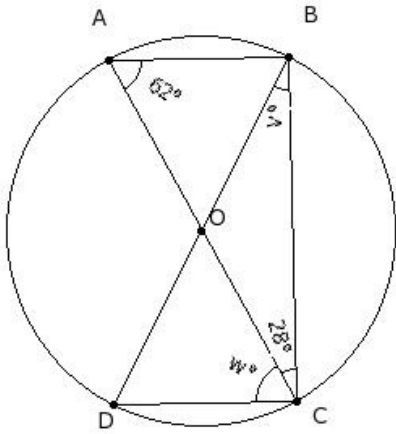


- (i) 334° (ii) 304° (iii) 319° (iv) 314° (v) 309°

22. In triangle JKL, if a circle is drawn with KL as diameter and if it passes through J it is a

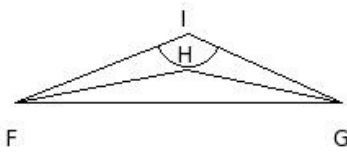
- (i) acute angled triangle (ii) equilateral triangle (iii) obtuse angled triangle (iv) right angle triangle

23. In the given figure, O is the centre of the circle and BD is a diameter. If $\angle ACB = 28^\circ$ and $\angle BAC = 62^\circ$, find $\angle DBC + \angle ACD$



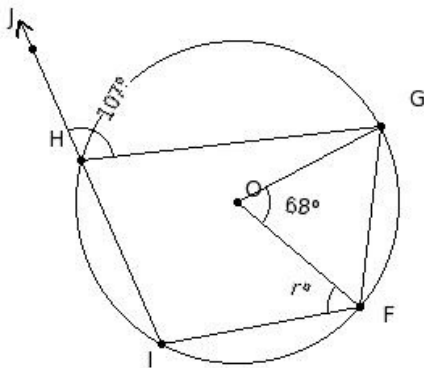
- (i) 100° (ii) 95° (iii) 105° (iv) 90° (v) 120°

24. In the given figure, $\triangle IFG$ is a scalene triangle. HF bisects $\angle IFG$. Similarly GH bisects $\angle FGI$. Given $\angle GIF = 134^\circ$, find $\angle GHF$



- (i) 187° (ii) 172° (iii) 162° (iv) 167° (v) 157°

25. In the given figure, O is the centre of the circle. If $\angle FOG = 68^\circ$ and $\angle GHJ = 107^\circ$, find $\angle IFO$



- (i) 66° (ii) 56° (iii) 81° (iv) 61° (v) 51°

Assignment Key

1) (iii)	2) (iii)	3) (v)	4) (ii)	5) (iii)	6) (iv)
7) (i)	8) (iii)	9) (ii)	10) (iv)	11) (ii)	12) (iv)
13) (iii)	14) (iii)	15) (i)	16) (iv)	17) (iii)	18) (iv)
19) (iii)	20) (iv)	21) (ii)	22) (iv)	23) (iv)	24) (v)
25) (v)					