



1. Two circles with radii R and r touch internally. If the distance between their centres is d , then
(i) $d > R - r$ (ii) $d < R - r$ (iii) $d = R + r$ (iv) $d = R - r$ (v) $d < R + r$

2. The angle between a tangent to a circle and the radius drawn at the point of contact is
(i) 100° (ii) 105° (iii) 90° (iv) 120° (v) 95°

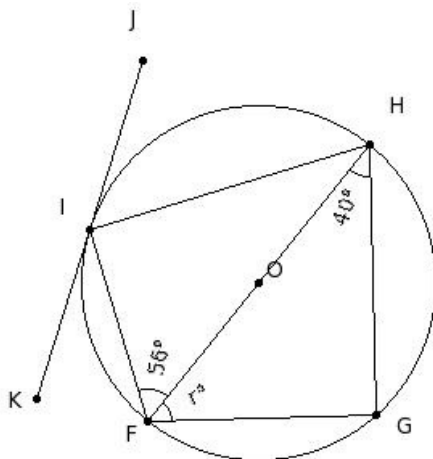
3. If two circles of radii 8 cm and 5 cm touch externally, the distance between their centres is
(i) 14 cm (ii) 15 cm (iii) 11 cm (iv) 13 cm (v) 12 cm

4. If two circles touch internally, the number of their common tangents is
(i) 2 (ii) 4 (iii) 0 (iv) 1 (v) (-2)

5. If two circles intersect, the number of their common tangents is
(i) 2 (ii) 5 (iii) 3 (iv) 0 (v) 1

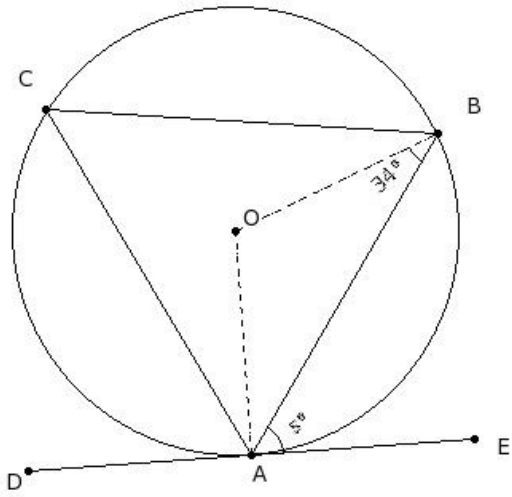
6. If two circles touch externally, the number of their common tangents is
(i) 3 (ii) 4 (iii) 2 (iv) 6 (v) 0

7. In the given figure, O is the centre of the circle and JK is the tangent at I . If $\angle HFI = 56^\circ$ and $\angle FHG = 40^\circ$, find $\angle HFG$



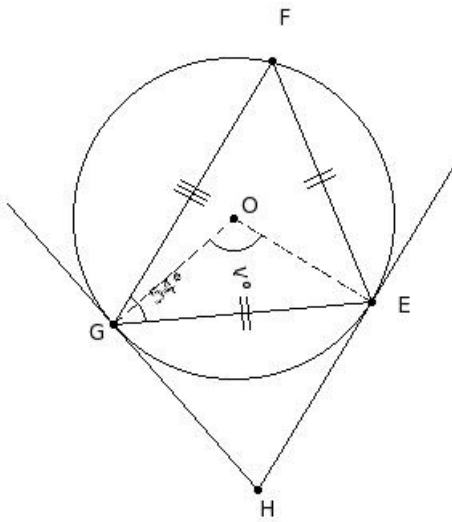
(i) 80° (ii) 55° (iii) 60° (iv) 50° (v) 65°

8. In the given figure, O is the centre of the circle and DE is the tangent at A. If $\angle OBA = 34^\circ$, find $\angle EAB$



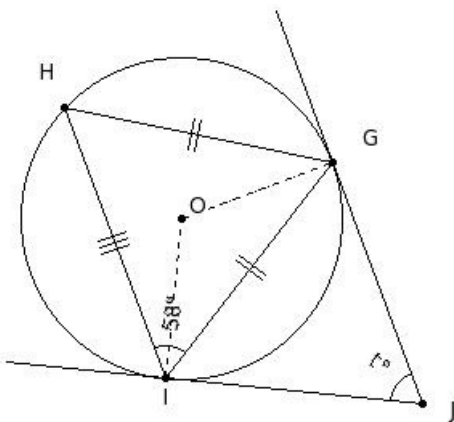
- (i) 71° (ii) 61° (iii) 56° (iv) 86° (v) 66°

9. In the given figure, O is the centre of the circle and the tangents EH and GH meet at point H. If $\angle FGE = 54^\circ$, find $\angle EOG$



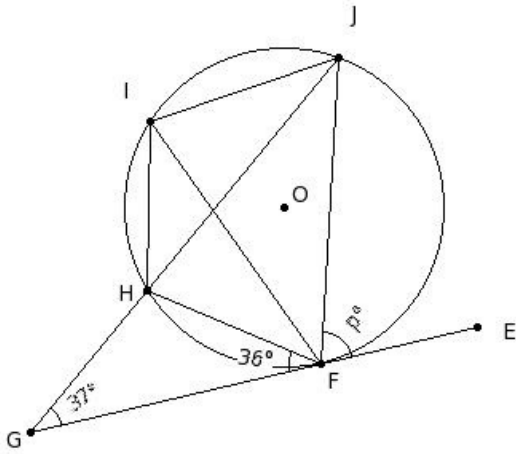
- (i) 113° (ii) 108° (iii) 123° (iv) 138° (v) 118°

10. In the given figure, O is the centre of the circle and the tangents GJ and IJ meet at point J. If $\angle HIG = 58^\circ$, find $\angle IJG$



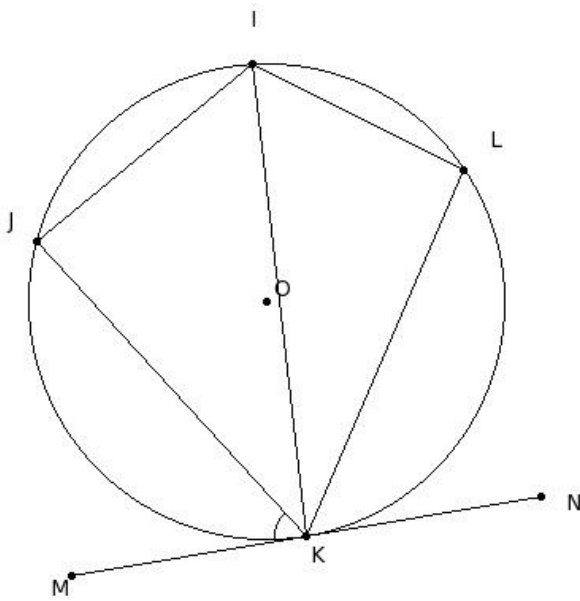
- (i) 94° (ii) 79° (iii) 69° (iv) 74° (v) 64°

11. In the given figure, O is the centre of the circle and EG is the tangent at F. If $\angle FGH = 37^\circ$, $\angle GFH = 36^\circ$, find $\angle JFE$



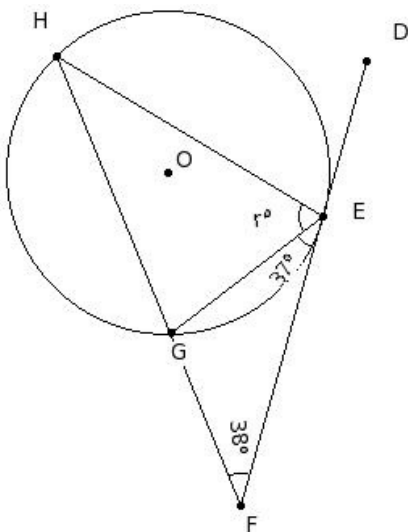
- (i) 88° (ii) 83° (iii) 78° (iv) 103° (v) 73°

12. In the given figure, IJKL is a cyclic quadrilateral such that KI bisects $\angle LIJ$ and MN is the tangent at K. If $\angle KIJ = 57^\circ$, find $\angle MKJ$



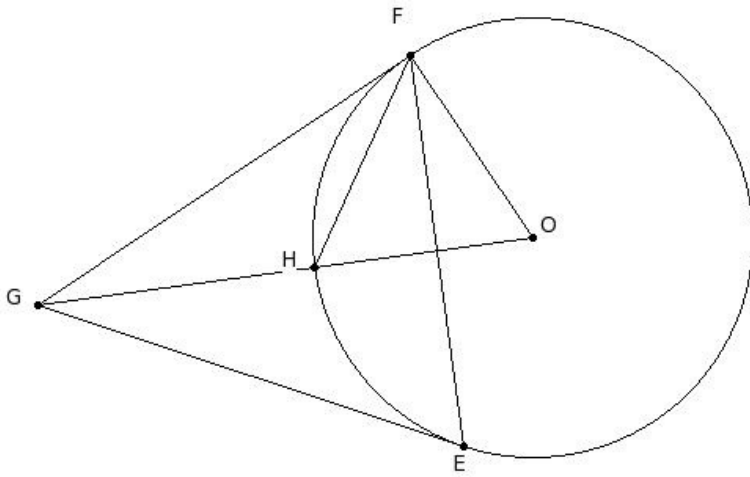
- (i) 72° (ii) 57° (iii) 62° (iv) 87° (v) 67°

13. In the given figure, O is the centre of the circle and DF is the tangent at E. If $\angle EFG = 38^\circ$, $\angle FEG = 37^\circ$, find $\angle HEG$



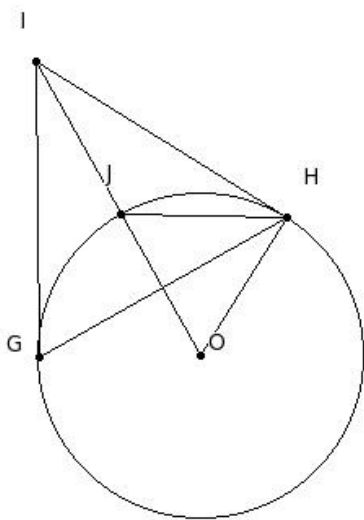
- (i) 78° (ii) 73° (iii) 98° (iv) 83° (v) 68°

14. In the given figure, GE and GF are tangent segments to the circle with centre O. Given $\angle FGH = 26^\circ$, find $\angle EFO$



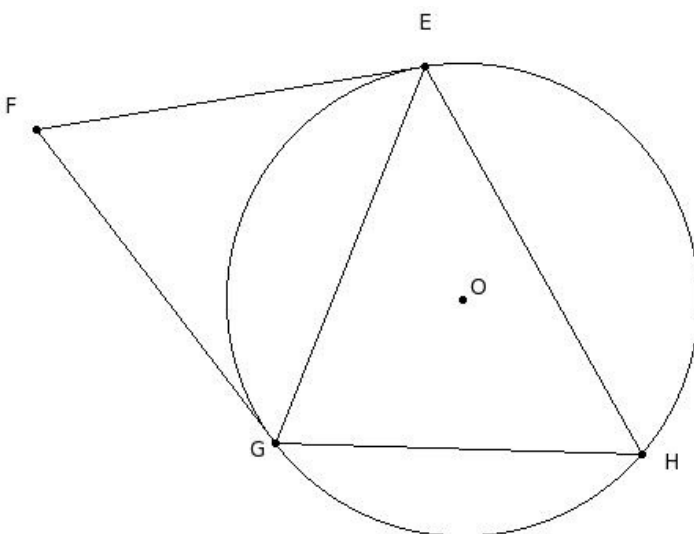
- (i) 26° (ii) 36° (iii) 31° (iv) 56° (v) 41°

15. In the given figure, IG and IH are tangent segments to the circle with centre O. Given $\angle HIJ = 29^\circ$, find $\angle GHJ$



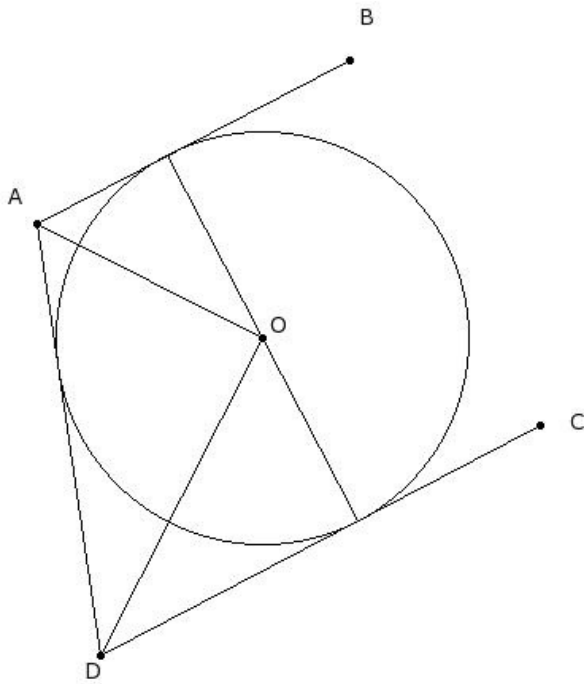
- (i) 60.5° (ii) 40.5° (iii) 35.5° (iv) 30.5° (v) 45.5°

16. O is the centre of the circle. EF and GF are tangents to the circle. If $\angle GHE = 59^\circ$, find $\angle EFG$



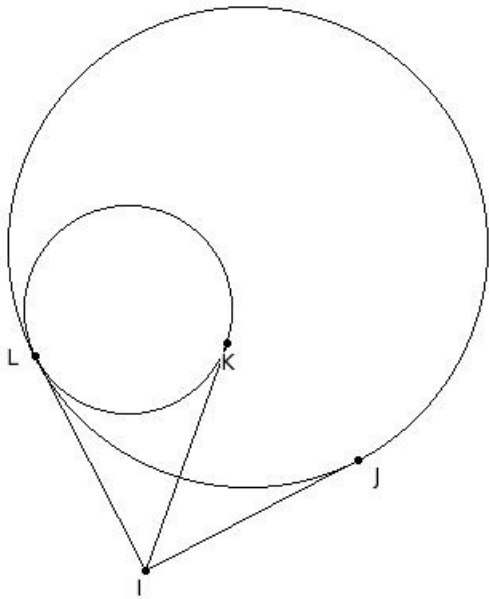
- (i) 92° (ii) 77° (iii) 62° (iv) 67° (v) 72°

17. In the given figure, AB and CD are parallel tangents to the circle with centre O. AD is another tangent meeting AB and CD at A and D. Find $\angle AOD$



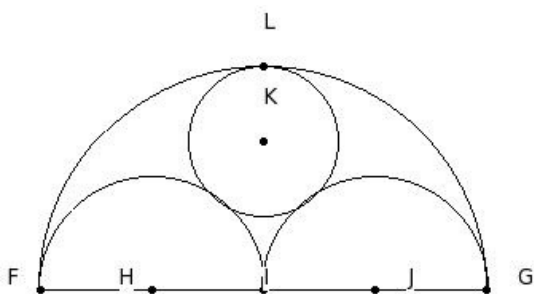
- (i) 90° (ii) 95° (iii) 120° (iv) 100° (v) 105°

18. In the given figure, IL is the common tangent to the two circles. IJ & IK are also tangents. Given IJ = 15 cm, find IK



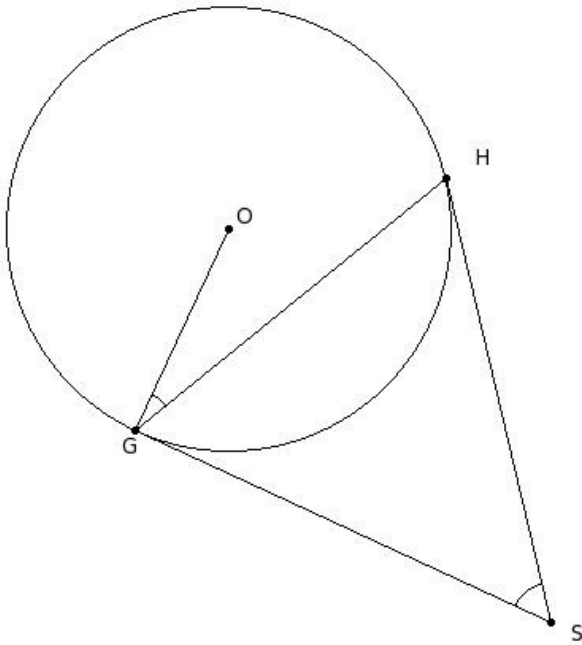
- (i) 13 cm (ii) 17 cm (iii) 15 cm (iv) 16 cm (v) 14 cm

19. FG is a line segment and I is its mid-point. Three semi-circles are drawn with FI, IG and FG as diameters. H, J and K respectively are the centres of these semi-circles. A new circle is drawn touching these three semi-circles. Find its radius, given FH = 7 cm



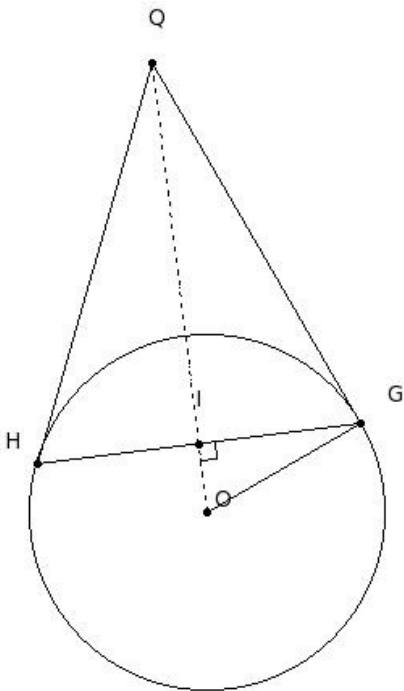
- (i) 6.67 cm (ii) 2.67 cm (iii) 5.67 cm (iv) 3.67 cm (v) 4.67 cm

20. In the given figure, GS & HS are tangents to the circle with centre O. Given $\angle S = 52^\circ$, find $\angle G$



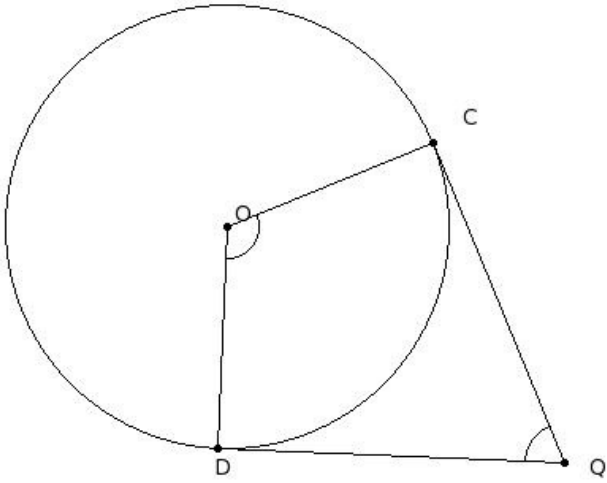
- (i) 31° (ii) 56° (iii) 41° (iv) 36° (v) 26°

21. In the given figure, GQ & HQ are tangents to the circle with centre O. Given $OG = 11$ cm and $GH = 20$ cm, find GQ



- (i) 25.00 cm (ii) 22.00 cm (iii) 26.00 cm (iv) 24.00 cm (v) 23.00 cm

22. In the given figure, CQ & DQ are tangents to the circle with centre O. Given $\angle COD = 115^\circ$, find $\angle CQD$



- (i) 80° (ii) 70° (iii) 65° (iv) 75° (v) 95°

Assignment Key

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