INEQUALITIES OF TRIANGLE
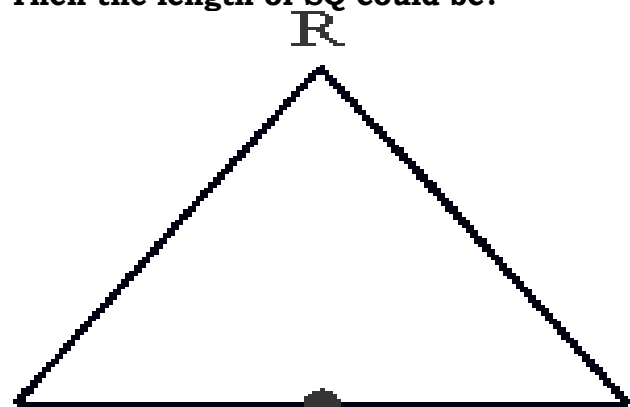
1. If the sides of a triangle are x, 7 and 17 then the value of x lies between?
A) 10 < x < 23   B) 9 < x < 24
C) 10 < x < 24   D) 9 < x < 23

2. In the diagram given below In ΔPQR, S is a point on PQ, PR = 7, PS = 4 and QR = 14.
Then the length of SQ could be?

CHANDAN LOGICS
9676578793,9494558793

A) 21   B) 17   C) 3   D) 12
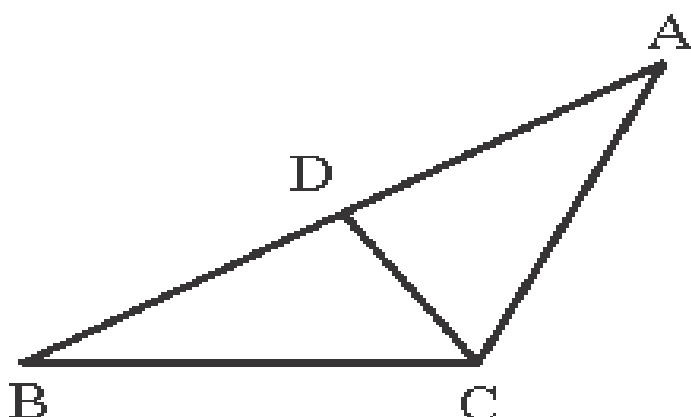
3. If 9, 16, x are sides of a triangle and x is a integer then find the number of possible values of x?
A) 16   B) 17   C) 18   D) 19

4. Find the sum of perimeter of all the triangles formed from the sides 3cm, 5cm and x cm. where x is an integer?
A) 50   B) 65   C) 75   D) 70

5. In the following figure BD = CD = AC $\angle ABC = 27°$, then $\angle ACD = ?$

CHANDAN LOGICS
9676578793,9494558793

A) 27°   B) 54°   C) 72°   D) 58°

6. In the given figure $AC \perp CE$ and

$\angle A : \angle B : \angle C = 3:2:1,$ then $\angle ECD = ?$

CHANDAN LOGICS
9676578793,9494558793

A) 50°   B) 45°   C) 55°   D) 60°
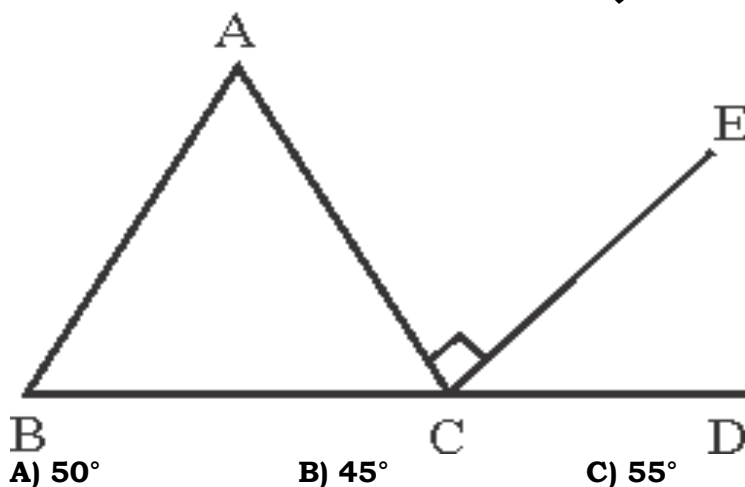
7. In the given figures AM = AD, $\angle B = 63°$ and CD is an angle bisector of $\angle C$ then $\angle MAC = ?$

CHANDAN LOGICS
9676578793,9494558793
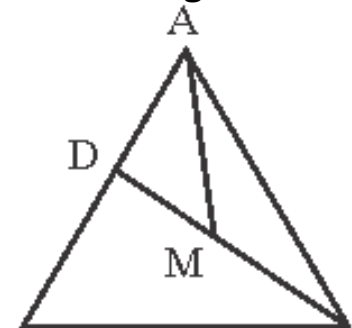
A) 27°   B) 37°   C) 63°   D) 73°

8. In the given figure AD = BD = AC then $\angle ACB = ?$

71°

CHANDAN LOGICS
9676578793,9494558793

Follow **Chandan Logics** on
[YouTube] [Facebook] [Instagram] [Twitter] [WhatsApp] [Telegram]

Download **Chandan Logics** APP
Contact: **96 76 57 8793 / 94 94 55 8793**
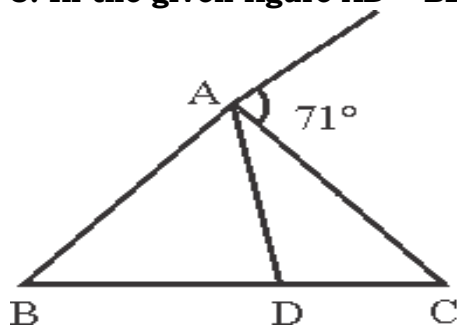One **STOP** For **ALL Competitive EXAMS**

Google Play — App Store
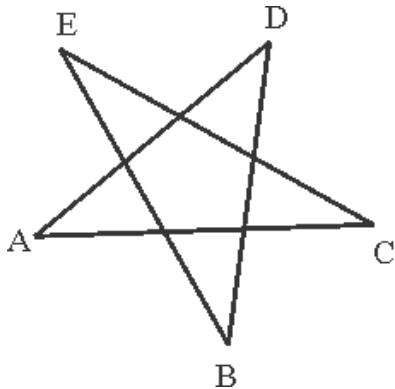
A) $\dfrac{124}{3}$ B) $\dfrac{142}{3}$ C) 39°   D) 59

9. In the given figure,

$$\angle A + \angle B + \angle C + \angle D + \angle E = ?$$

CHANDAN LOGICS
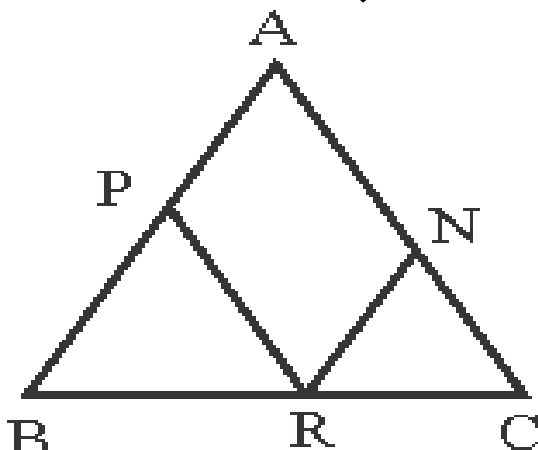9676578793,9494558793

A) 90°   B) 720°   C) 180°   D) 540°

10. If $\angle A = 44°, BP = BR$ **and CN = RC then** $\angle PRN = ?$

CHANDAN LOGICS
9676578793,9494558793
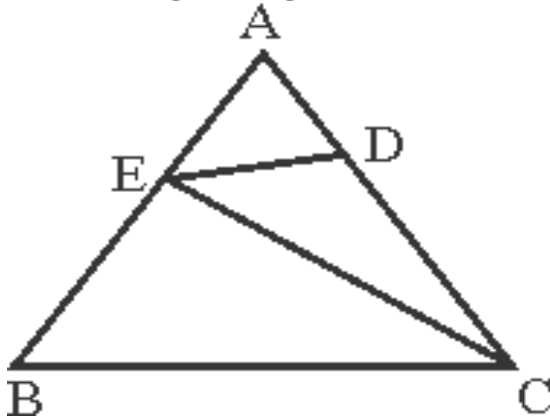
A) 58°   B) 78°   C) 68°   D) 66°

11. In the given figure AD = DE = EC = BC then $\angle A : \angle B = ?$

CHANDAN LOGICS
9676578793,9494558793

A) 1 : 3   B) 2 : 5   C) 3 : 1   D) 1 : 2

12. The ratio of the sides of a triangle is 5:6:7, the triangle is?
A) Acute angled   B) Right angled
C) Obtuse angled   D) None of these

13. If 3 altitudes of a triangle is in the ratio 2:3:4, the triangle is?
A) Acute angled   B) Right angled
C) Obtuse angled   D) None of these

14. The measure of sides $(x^2-1),(x^2+1)$ and 2x cm then the triangle is?

CHANDAN LOGICS
9676578793,9494558793

A) Equilateral   B) Isosceles
C) Right angled   D) Acute angled

15. In an obtuse angle triangle ABC, angle B is obtuse angle if side $AB=10cm, BC=13cm$ then find minimum possible integer length of side AC?

A) 17   B) 16   C) 15   D) 18

16. Consider obtuse angled triangle with sides 9 cm, 21 cm and x cm. If 21 is greatest side and x is an integer, then how many such triangles exists?

A) 5   B) 6   C) 7   D) 8

17. In $\Delta ABC,$ the internal angle bisector of $\angle ABC$ and external angle bisector of $\angle C$ meet at point P then $\angle BPC=?$ If $\angle B=80°$ and $\angle C=50°$

CHANDAN LOGICS
9676578793,9494558793

A) 30   B) 20   C) 25   D) 35

18. In $\Delta ABC, AD$ is the angle bisector and $AE \perp BC, \angle B=100$ and $\angle C=70$ then $\angle EAD=?$

A) 30   B) 15   C) 25   D) 20

19. In $\Delta PQR, \angle Q>\angle R, PS$ is the bisector of $\angle P$ and $PT \perp RQ.$ If $\angle SPT=28°$ and $\angle R=23°$ then $\angle PQR=?$

A) 79°   B) 74°   C) 82°   D) 84°

20. If $\triangle$ PQR, 'O' is the point inside the triangle such that $\angle P=80°$ and $\angle OQR=4\angle PQO, \angle ORQ=4\angle PRO$ then $\angle QOR=?$

A) 60°   B) 120°   C) 80°   D) 100°

21. In the given figure AF angle bisector of angle BAC and CD is exterior bisector of angle

BCA then what will be value of θ?
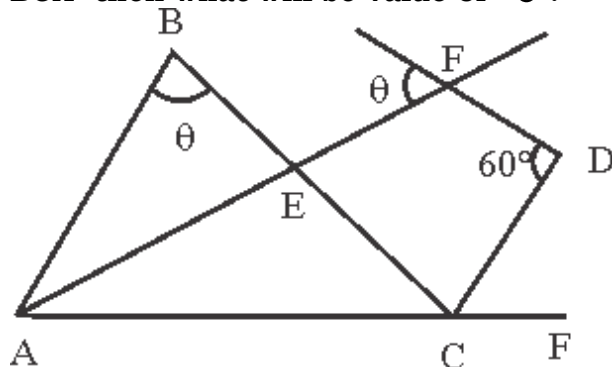
A) 40°   B) 45°   C) 48°   D) 30°

22. In the given triangle, if AD = BD = AC then the value of angle C will be?

A) 72°   B) 90°   C) 54°   C) 64°

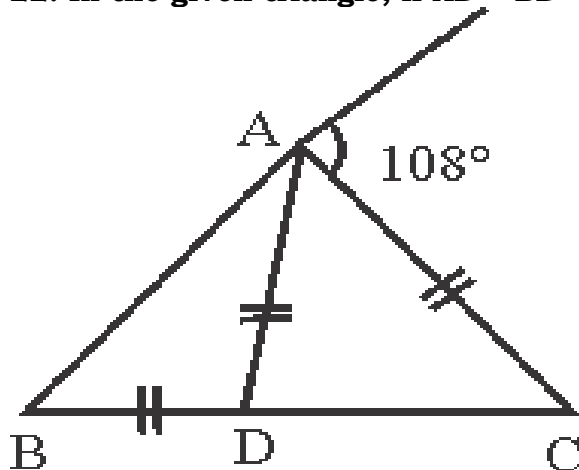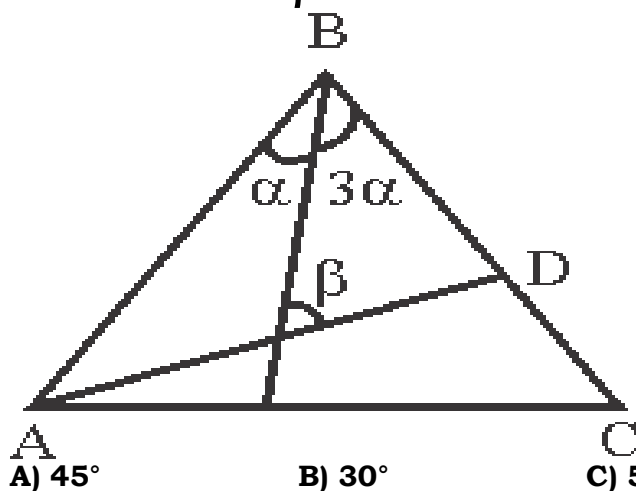**23. ABC is an isosceles triangle in which AB = BC, AD is angle bisector of $\angle BAD$.**

Find the value of β

A) 45°   B) 30°   C) 53°   D) 36°

24. In ΔABC D is a point on BC such that

![Chandan Logics logo] **Chandan Logics** — Aspire to Inspire

Download **Chandan Logics** APP
Contact: 96 76 57 **8793**
94 94 55 **8793**
GET IT ON Google Play
Download on the App Store

$\angle BAD = \dfrac{1}{2}\angle ADC, \angle BAC = 87°$ and $\angle C = 42°$. Then $\angle ADB = ?$

A) 94° B) 68° C) 102° D) 78°

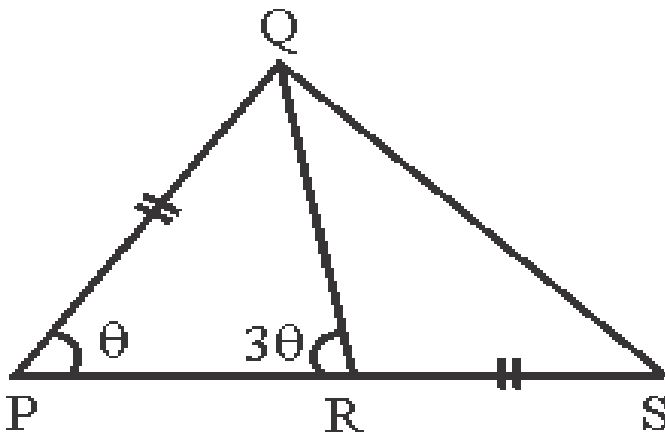25. In ΔABC, D is a point on AC such that AB = BD = DC. If $\angle BAD = 70°$ then $\angle B = ?$

A) 75° B) 80° C) 82° D) 7°

26. In ΔPQR $QT \perp PR$ and 'S' is a point on QR such that $\angle PSQ = X$, if $\angle TQR = 46°, \angle SPR = 32°$ then x =?

A) 76° B) 78° C) 82° D) 72°

27. In the given figure QS is external angle bisector of ΔPQR PQ = RS, then $\theta = ?$

CHANDAN LOGICS
9676578793,9494558793

A) 48° B) 45° C) 36° D) 54°

28. In a quadrilateral ABCD, the bisectors of $\angle C$ and $\angle D$ meet at E. If $\angle CED = 56°$ and $\angle A = 49°$, then the measure of $\angle B$ is?

A) 63° B) 67° C) 54° D) 71°

29. An equilateral triangle BEC is drawn inside a square ABCD. What is the value of $\angle AED$ in degrees?

A) 90° B) 120° C) 135° D) 150°

30. In a square ABCD, an equilateral triangle ABE is drawn inside the square on side AB, diagonal DB cut the triangle at 'O'. Then find the value of $\angle AOB?$

A) 60° B) 45° C) 75° D) 90°

31. An equilateral triangle ABE is drawn on the side AB of a square ABCD. Equilateral

Follow Chandan Logics on
[YouTube] [Facebook] [Instagram] [Twitter] [WhatsApp] [Telegram]

Download Chandan Logics APP
Contact: **96 76 57 8793 / 94 94 55 8793**
One **STOP** For **ALL Competitive EXAMS**
GET IT ON Google Play
Download on the App Store

Chandan Logics

Chandan Logics
Aspire to Inspire

Download **Chandan Logics** APP
Contact: 96 76 57 **8793** GET IT ON ► Google Play
94 94 55 **8793**
Download on the ● App Store

triangle is outside the square line DE and diagonal AC intersects each other at point 'O'
then find $\angle COD?$
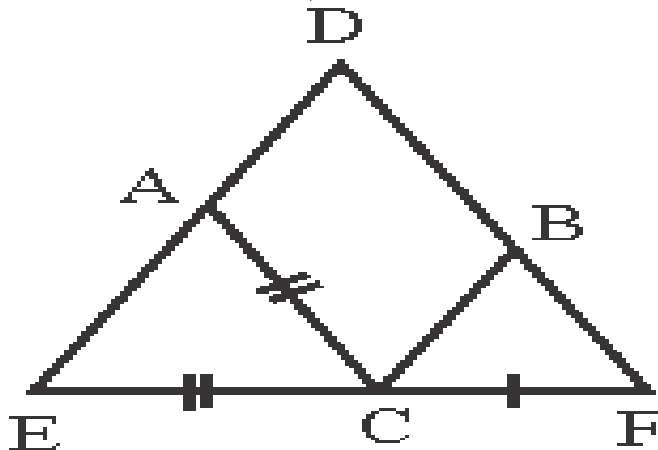A) 45°   B) 60°   C) 75°   D) 60°

32. In a triangle DEF shown below points AB and C are taken on DE, DF and EF respectively. Such that EC = AC and CF = BC.

If $\angle D = 60°$, then $\angle ACB = ?$
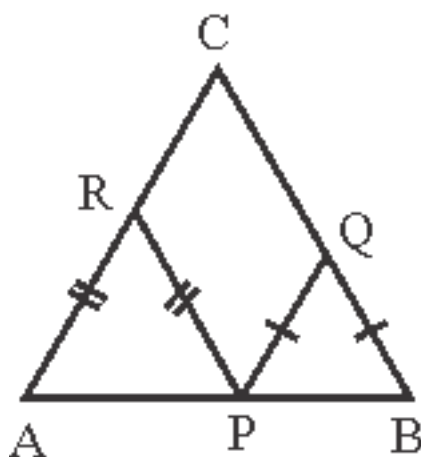
CHANDAN LOGICS
9676578793,9494558793

A) 120°   B) 100°   C) 60°   D) 40°

33. In the given figure $\angle RPQ = ?$ **IF** $\angle C = \theta$

CHANDAN LOGICS
9676578793,9494558793

A) θ B) $90 - \dfrac{\theta}{2}$ C) $90 + \dfrac{\theta}{2}$ D) $\dfrac{\theta}{2}$

34. In the given figure $\angle PQR = ?$

CHANDAN LOGICS
9676578793,9494558793

Follow Chandan Logics on

Download Chandan Logics APP
Contact: **96 76 57 8793 / 94 94 55 8793**
One **STOP** For **ALL Competitive EXAMS**

GET IT ON ► Google Play
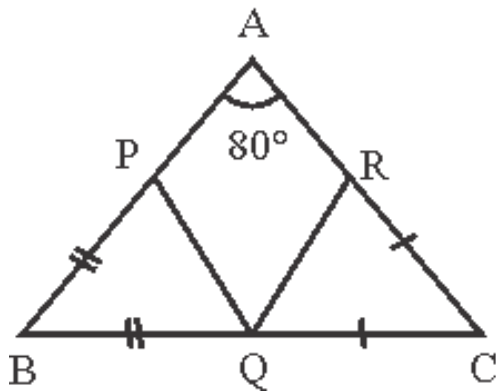Download on the ● App Store

Chandan Logics

Chandan Logics
Aspire to Inspire

Download **Chandan Logics** APP
Contact: 96 76 57 **8793**
94 94 55 **8793**
Google Play
App Store

CHANDAN LOGICS
9676578793,9494558793

A) 50   B) 60   C) 30   D) 20

35. In triangle ABC $\angle C$ **is an obtuse angle. The bisector of exterior angle at A and B meet BC and AC produced at D and E respectively. If AB = AD = BE. Then** $\angle ACB=?$

A) 120°   B) 108°   C) 105°   D) 116°

36. In $\Delta PQR, \angle P=120°, PS\perp QR$ **at S and**

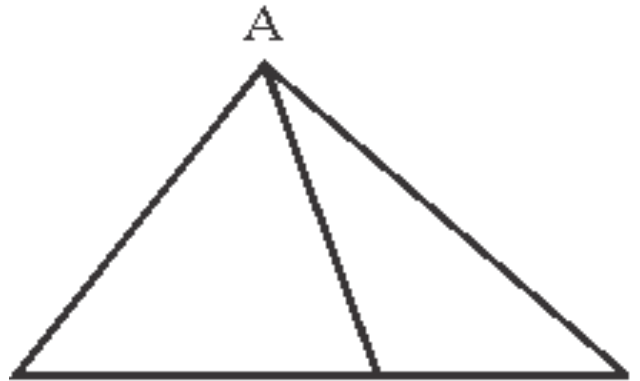**PQ + QS = SR, then** $\angle Q=?$

A) 40°   B) 20°   C) 30°   D) 50°

37. In the given below triangle

AB = AC = CD. If $\angle ADB=30°,$

then $\angle BAD=?$

CHANDAN LOGICS
9676578793,9494558793

A) 40°   B) 90°   C) 70°   D) 100°

CHANDAN LOGICS
9676578793,9494558793

Follow Chandan Logics on

Download Chandan Logics APP
Contact: 96 76 57 8793 / 94 94 55 8793
One STOP For ALL Competitive EXAMS

Google Play
App Store