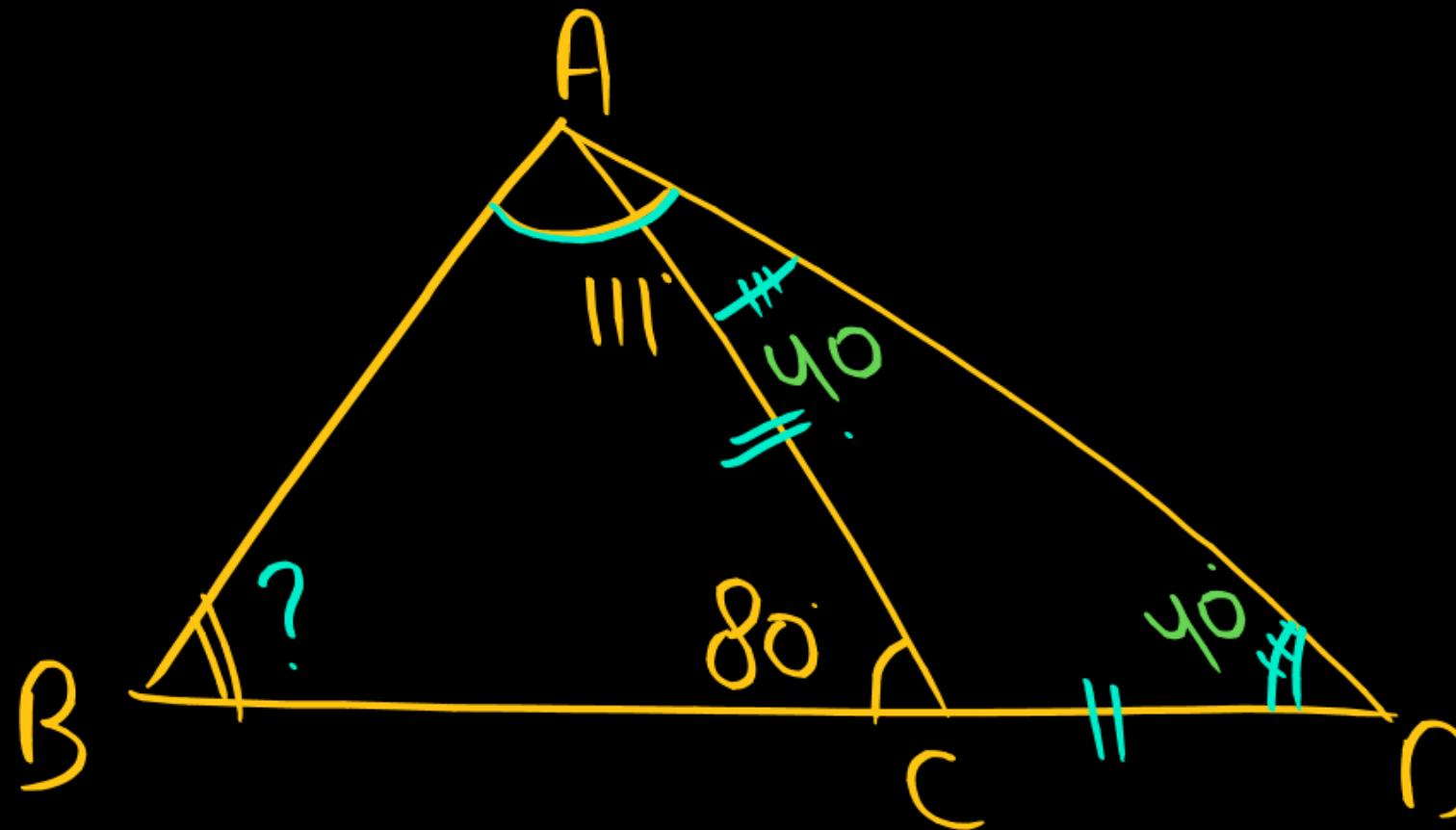


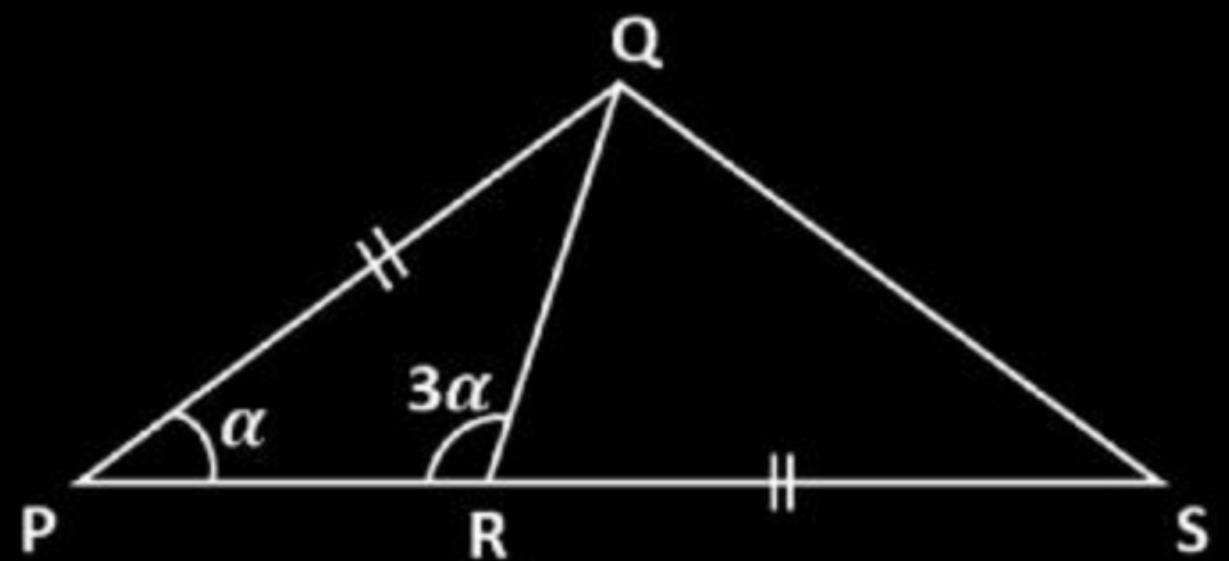
In Q ΔABC , BC produced D such that $CD = AC$ $\angle BAO = 111^\circ$, $\angle ACB = 80^\circ$ find $\angle ABC = ?$

Q ΔABC में, BC ने D को इस प्रकार बनाया है कि $CD = AC$ $\angle BAO = 111^\circ$, $\angle ACB = 80^\circ$ $\angle ABC =$ ज्ञात करें?

$$\begin{aligned} \text{In } \triangle ABD \text{,} \\ \angle B &= 180 - 111 - 40 \\ &= 29 \end{aligned}$$



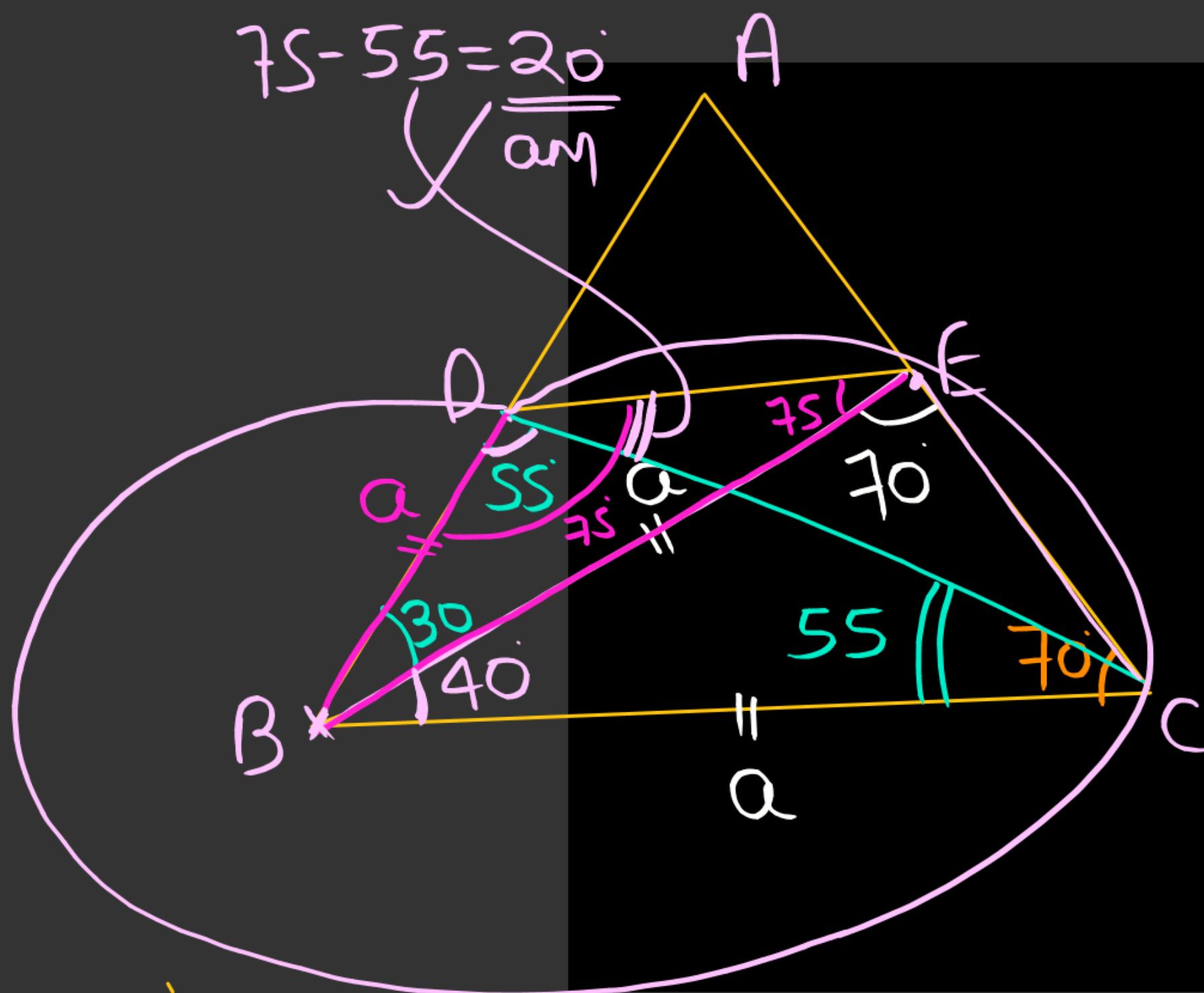
In the given figure QS is external angle bisector of $\triangle PQR$, if $PQ=RS$, then find α ?
दिए गए चित्र में, भुजा QS बाह्य कोण समद्विभाजक है, यदि $PQ=RS$, तब α का मान जात करे।



- a) 48°
- b) 36°
- c) 45°
- d) 54°

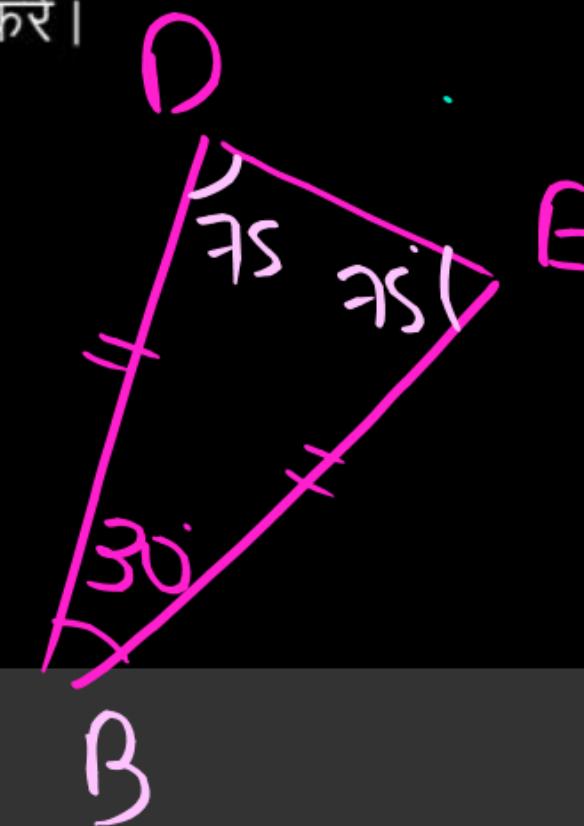
R.W

$$75 - 55 = 20$$



In a triangle ABC, $\angle B = \angle C = 70^\circ$. D & E are two points on side AB and AC such that $\angle BCD = 55^\circ$ and $\angle CBE = 40^\circ$. Find angle $\angle CDE = ?$

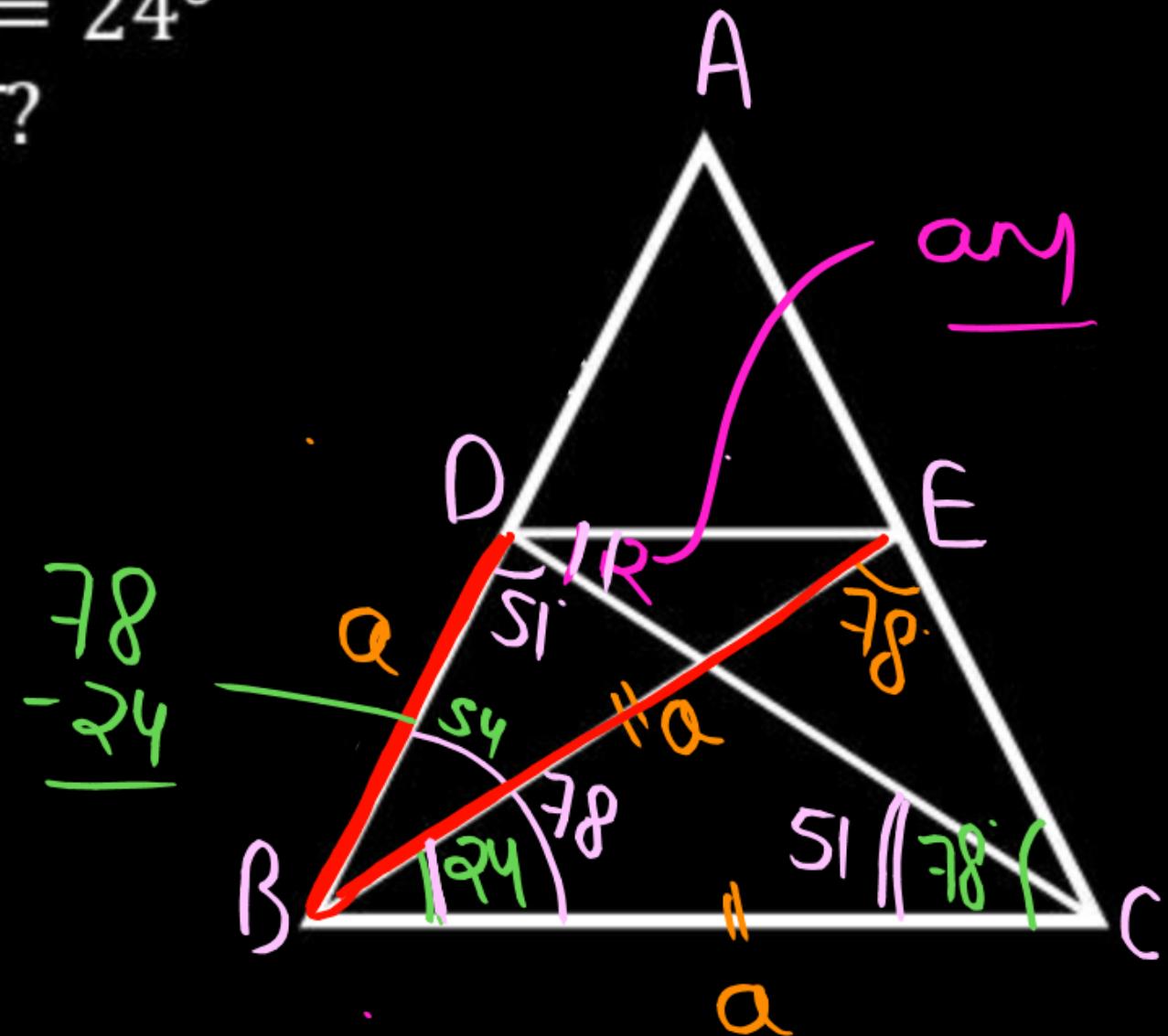
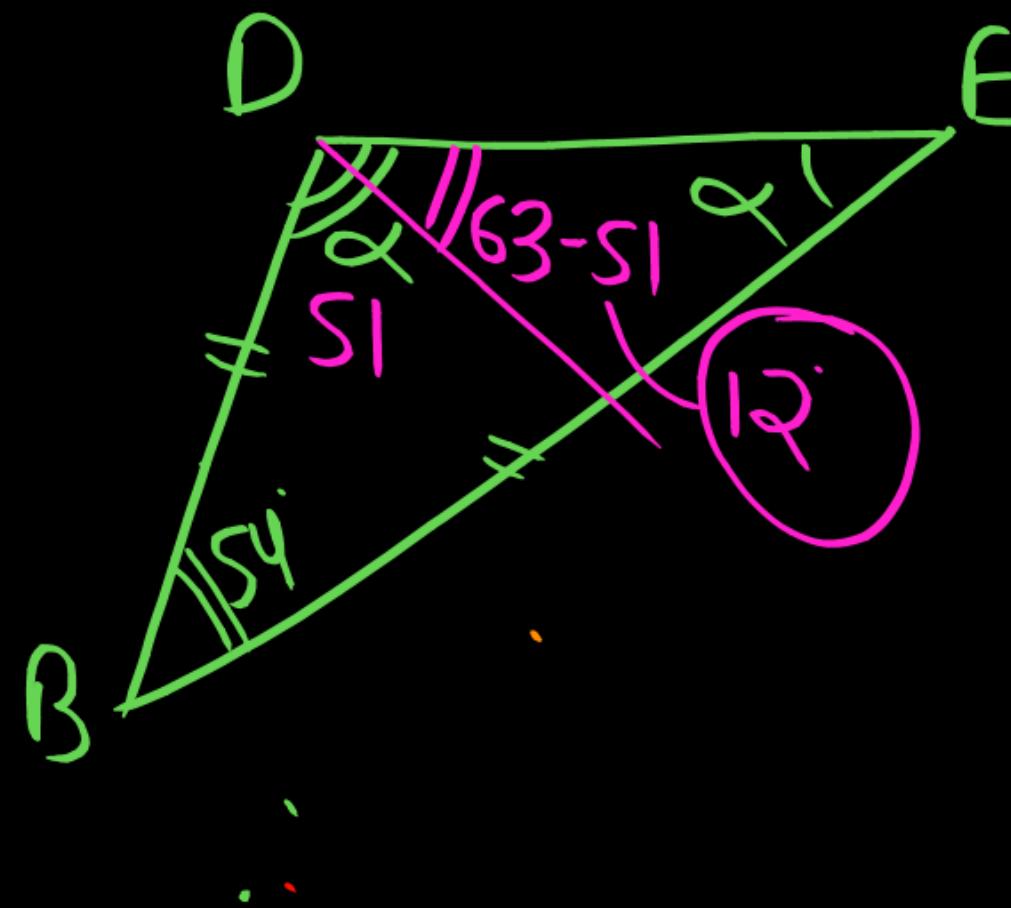
त्रिभुज ABC में $\angle B = \angle C = 70^\circ$ । दो बिन्दु D & E भजुओं AB and AC पर इस प्रकार हैं कि $\angle BCD = 55^\circ$ and $\angle CBE = 40^\circ$, तो $\angle CDE$ का मान ज्ञात करें।

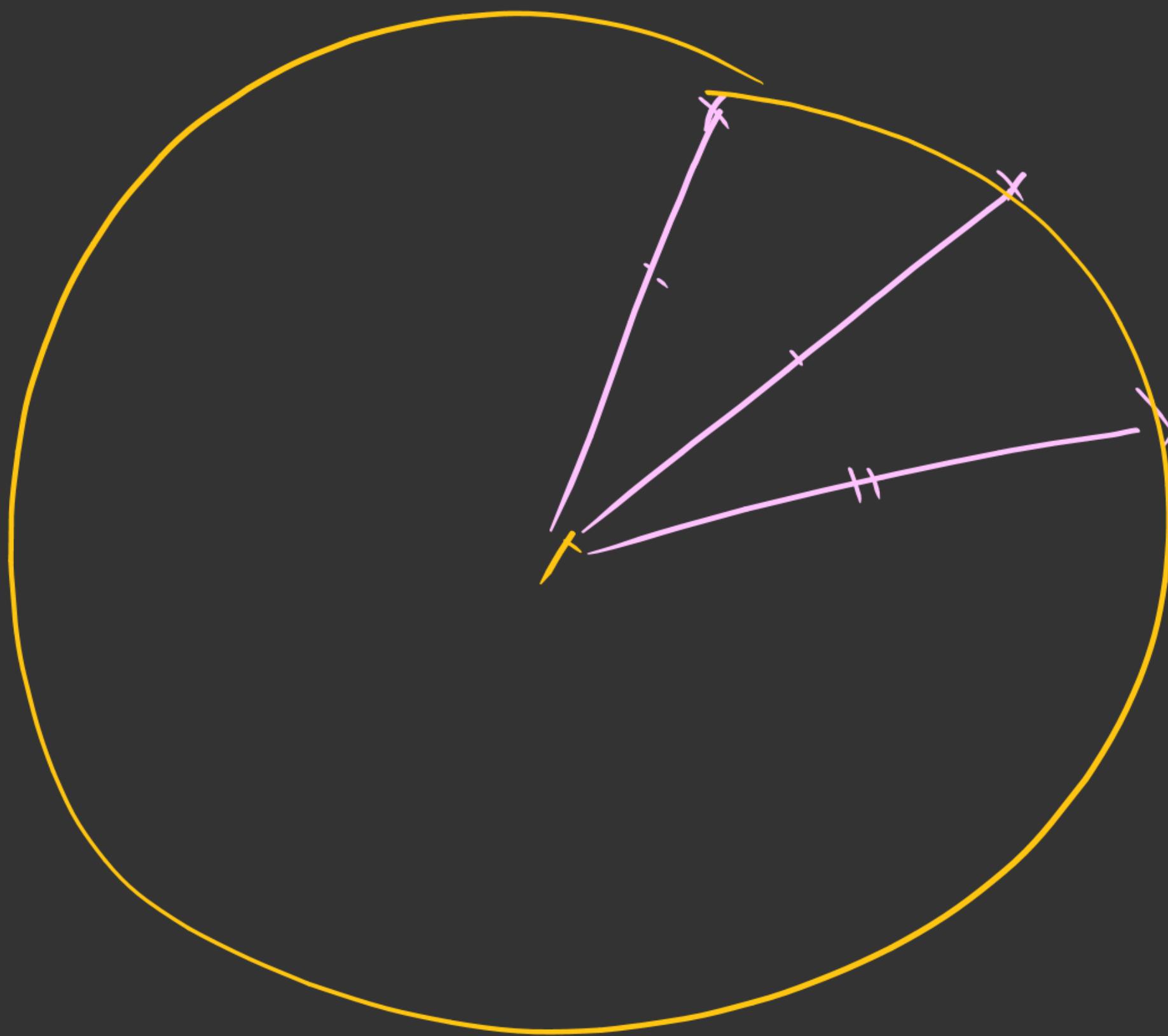


In $\triangle ABC$, $\angle B = \angle C = 78^\circ$,
 D & E are two points on side AB & AC
 such that $\angle BCD = 51^\circ$ & $\angle CBE = 24^\circ$ find $\angle CDE$?

$\triangle ABC$ में, $\angle B = \angle C = 78^\circ$,
 भुजा AB और AC पर D और E दो बिंदु इस प्रकार हैं कि $\angle BCD$
 $= 51^\circ$ और $\angle CBE = 24^\circ$
 $\angle CDE$ ज्ञात कीजिए?

$$\begin{aligned} Q &= 180 - S_4 \\ &= 63^\circ \end{aligned}$$

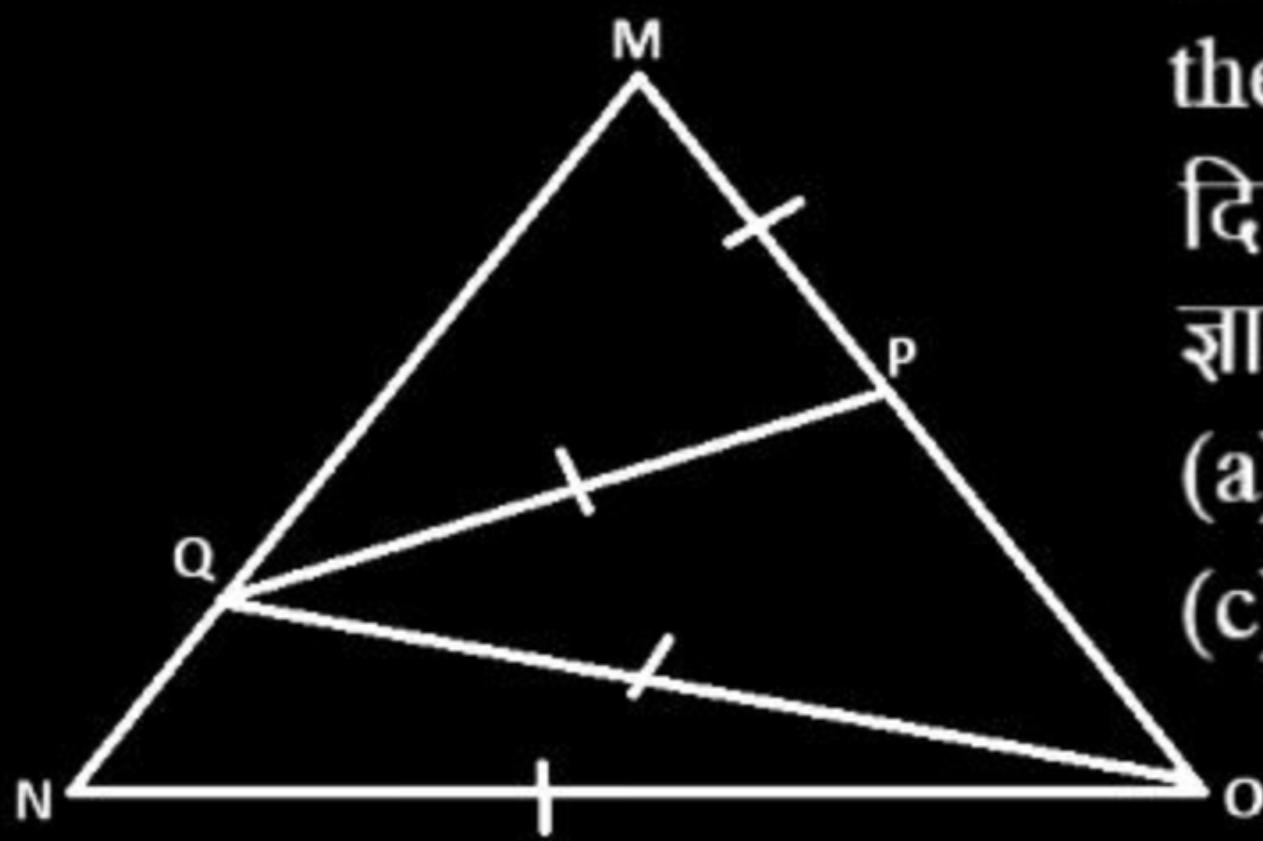




In the given ΔMNO , $MP = PQ = QO = ON$
then find $\angle M : \angle N$?

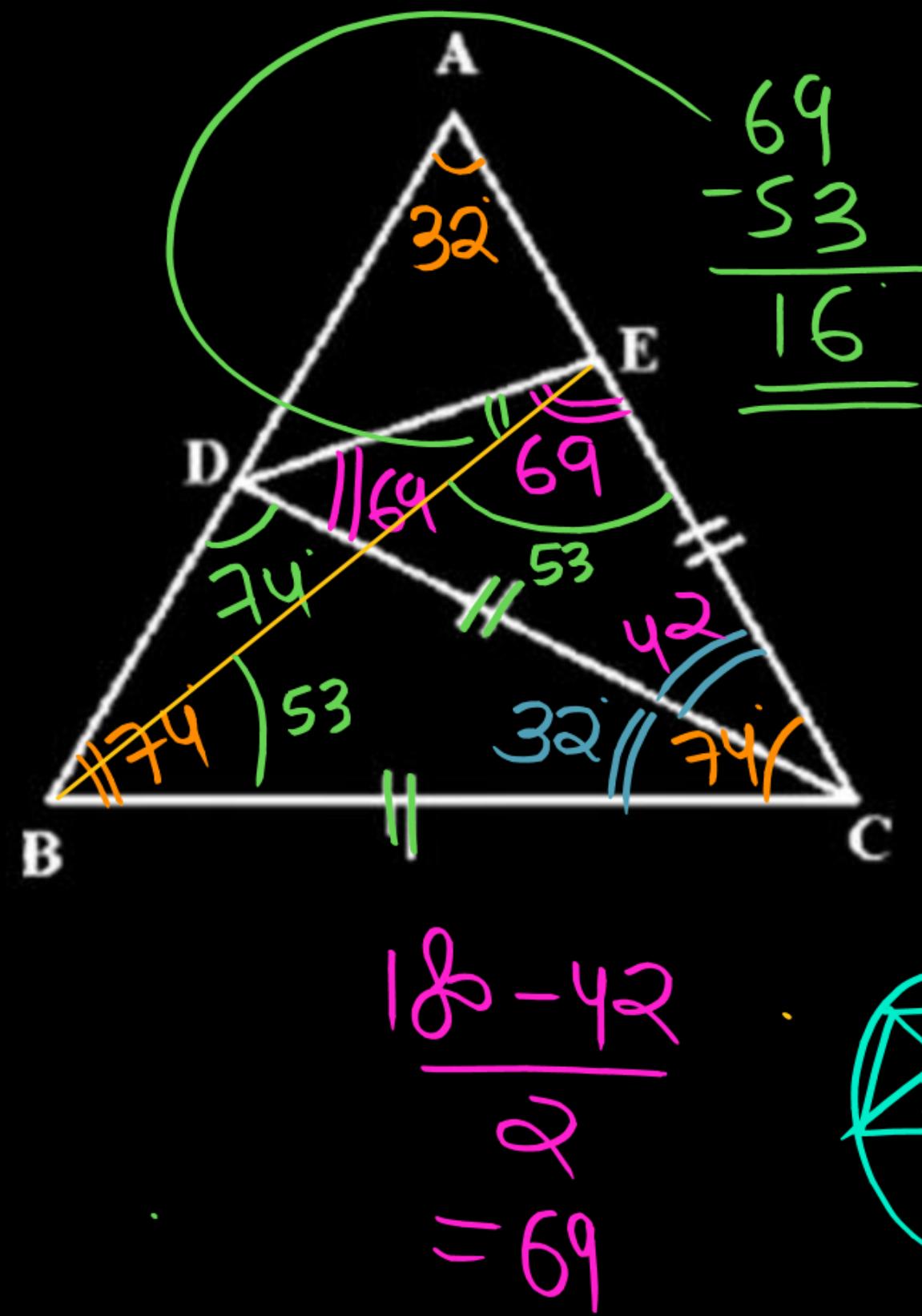
दिए गए ΔMNO में, $MP = PQ = QO = ON$ तो
ज्ञात कीजिये $\angle M : \angle N$?

- (a) 1:3 (b) 1:4
- (c) 1:2 (d) 2:3

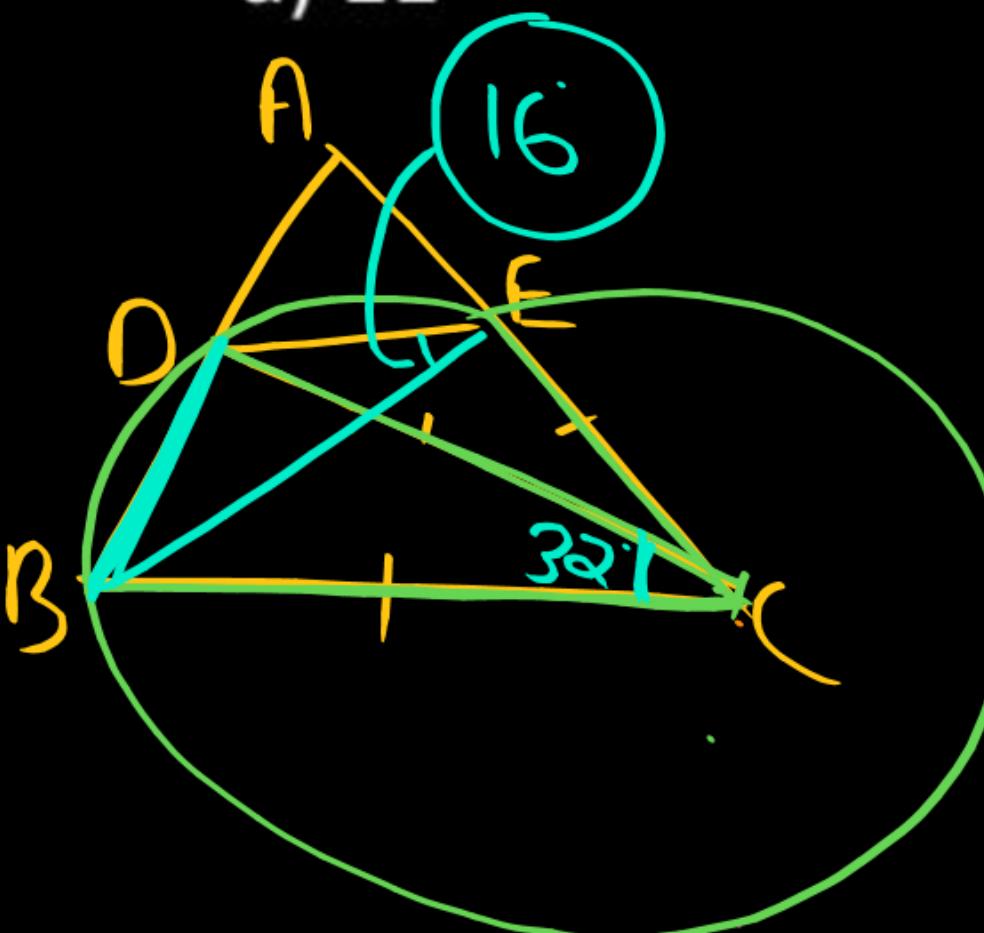
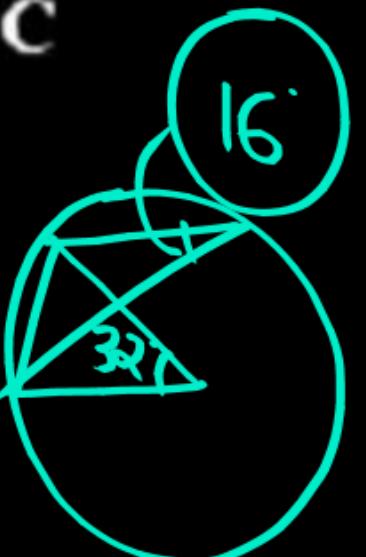


R.W.

based upon
ext. angle concept



In triangle ABC, AB=AC, $\angle BAC = 32^\circ$ if $BC = CD = EC$ then find $\angle BED$?
 त्रिभुज ABC में, AB=AC, $\angle BAC = 32^\circ$ यदि $BC = CD = EC$ तो $\angle BED$ ज्ञात करें?



node

Sum of all interior angle

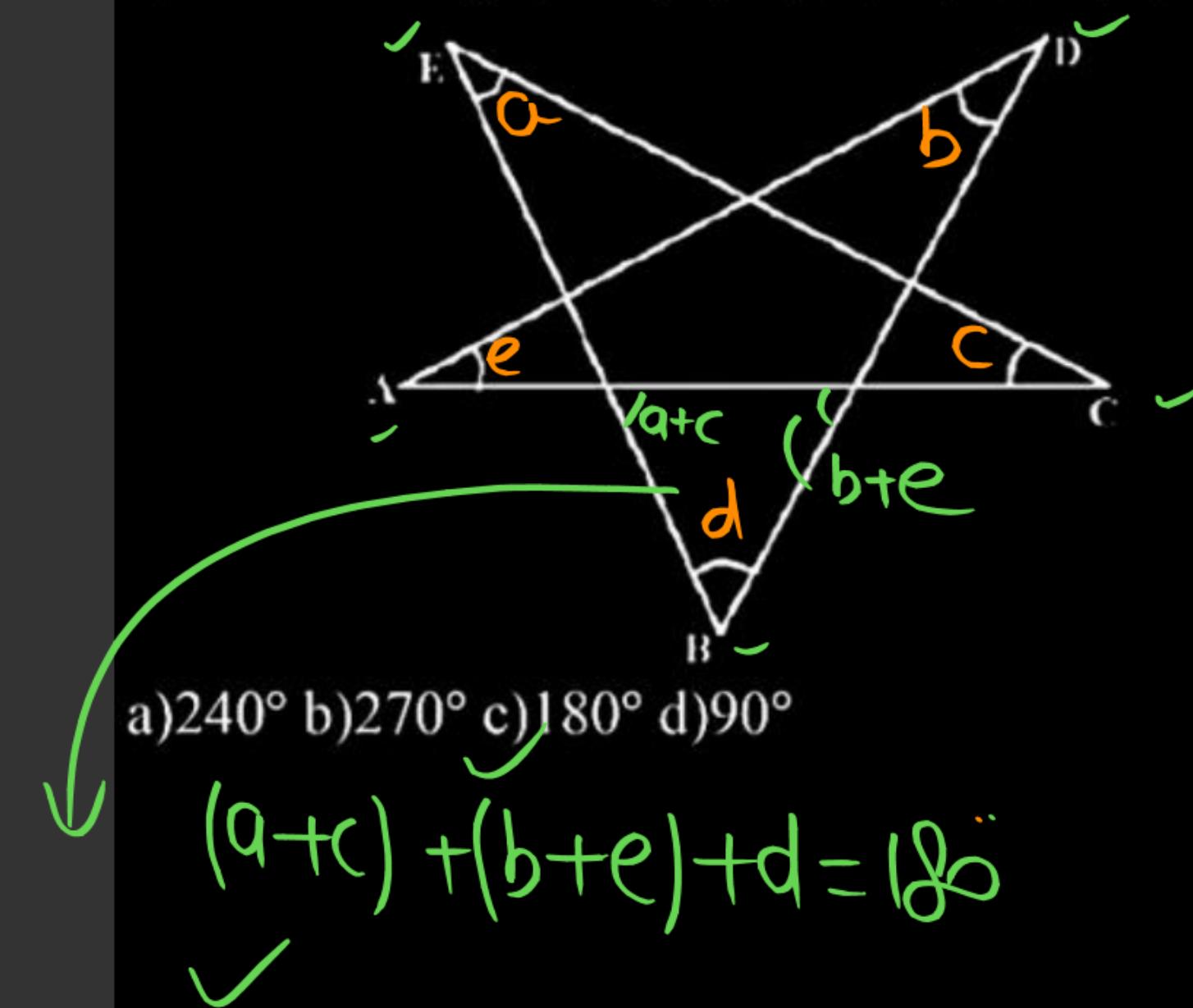
of a Star

$$= (m-4) \cdot 180$$

$$= (S-4) \cdot 180$$

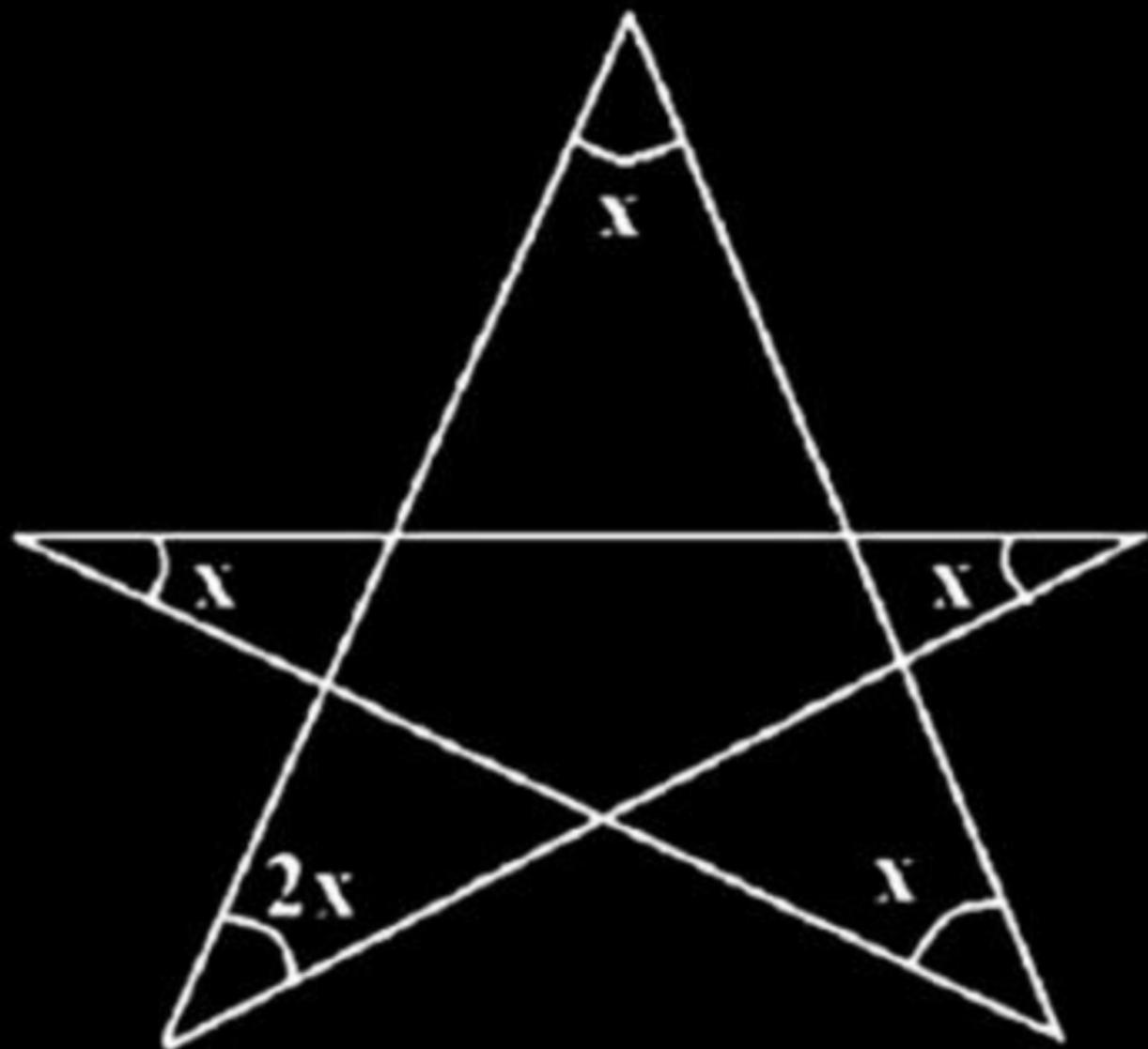
$$= 180$$

In the given figure, $\angle A + \angle B + \angle C + \angle D + \angle E$?
दिए गए चित्र में, $\angle A + \angle B + \angle C + \angle D + \angle E$?



Determine x?

x का मान ज्ञात करो।



- a) 32° b) 36° c) 30° d) 45°

$$6x = 180$$

$$\underline{\underline{x = 30}}^\circ$$

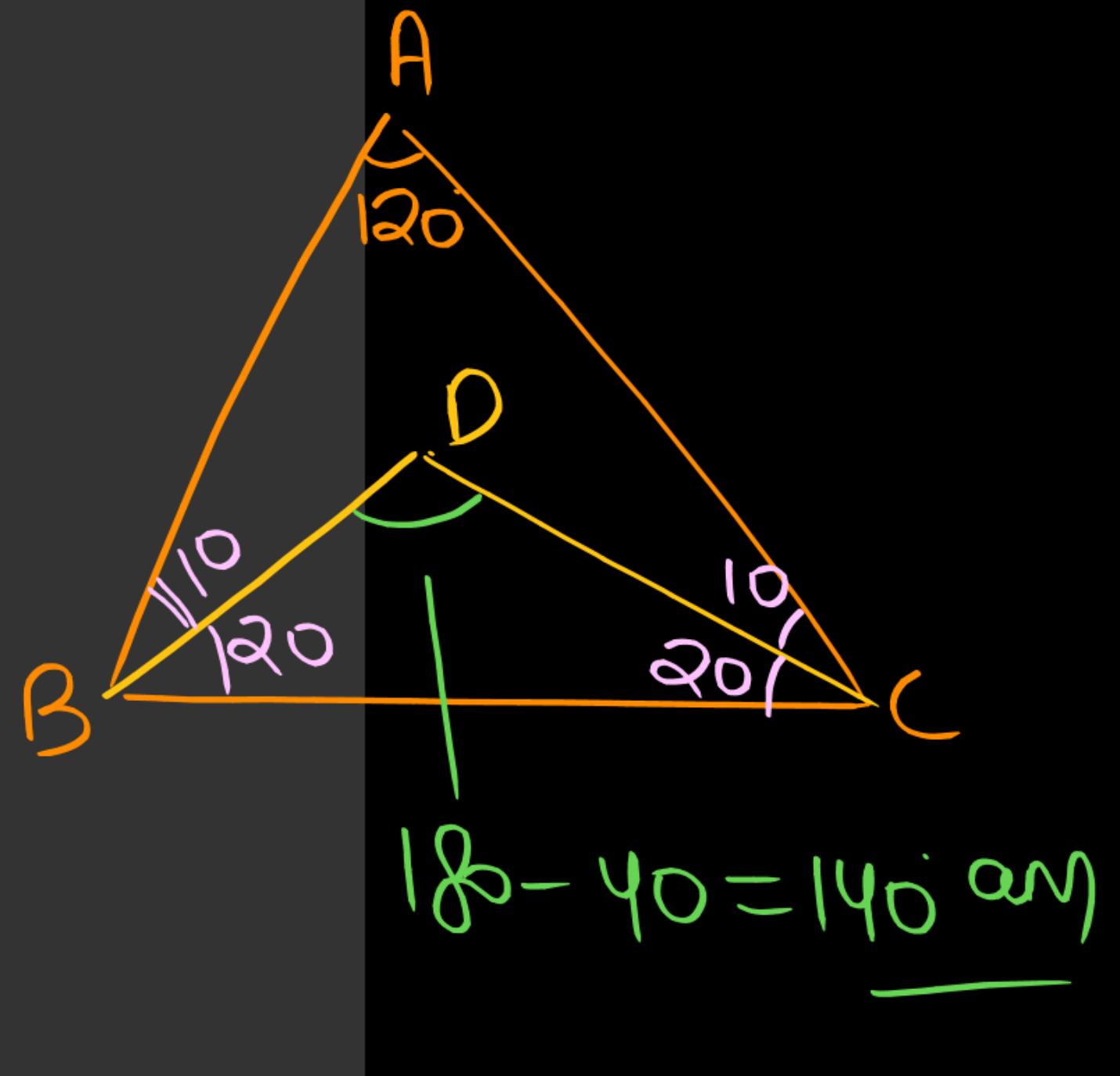


Sum of all interior angle = 2×180
 $= 360$

Value putting of angles in triangle

(i) Condition \rightarrow किसी भी त्रिभुज में Δ के तीनों कोणों का जोड़ 180° के होना-पड़ता है।

(ii) no. of variables (angles) are more than no. of eqn. (Always put value)



In triangle ABC, $\angle A$ is equal to 120° . There is a point D inside the triangle such that $\angle DBC = 2\angle ABD$ and $\angle DCB = 2\angle ACD$. What is the measure of $\angle BDC$?

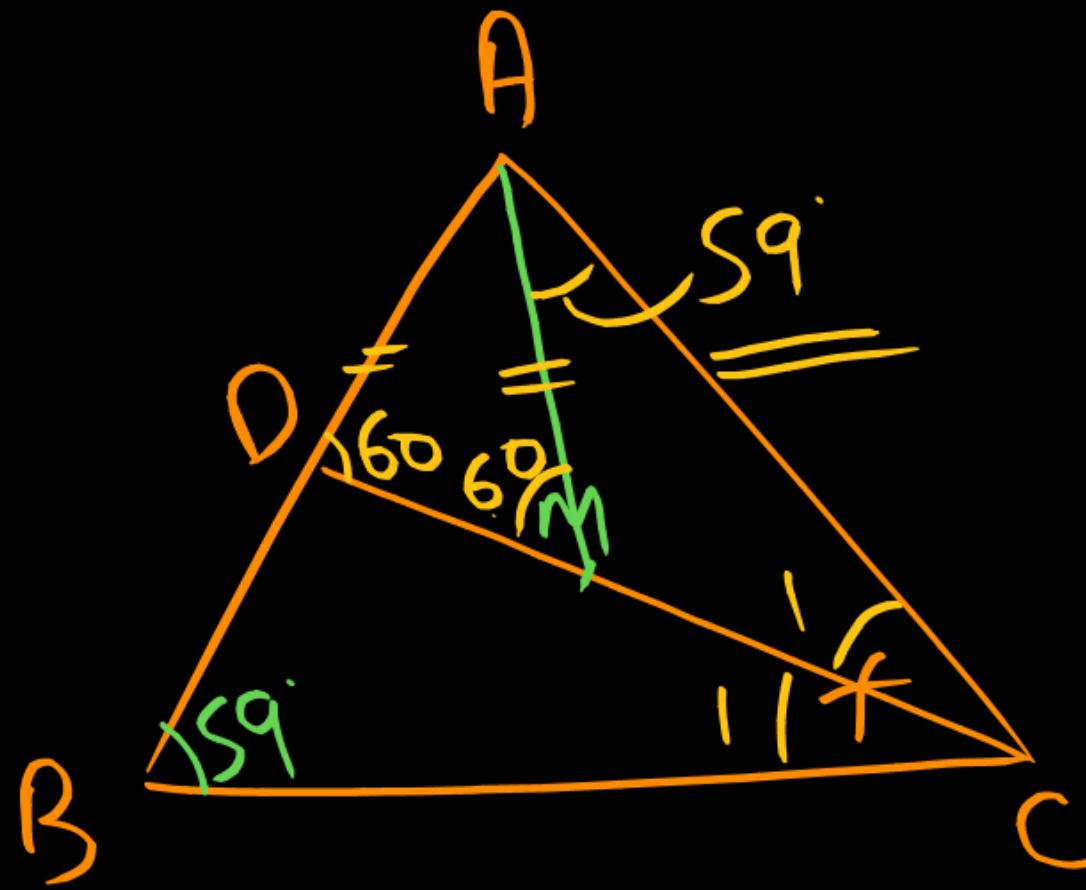
त्रिभुज ABC में $\angle A = 120$ तथा त्रिभुज के अन्दर बिन्दु D इस प्रकार है कि $\angle DBC = 2\angle ABD$ और $\angle DCB = 2\angle ACD$ तब $\angle BDC$ का मान ज्ञात कीजिए।

$$\begin{pmatrix} 10 \\ 10 \end{pmatrix}$$

In a triangle DEF, points A, B, and C are taken on DE, DF and EF respectively such that $EC = AC$ and $CF = BC$. If $\angle D = 40^\circ$ then, $\angle ACB = ?$

एक त्रिभुज DEF में, बिंदु A, B और C क्रमशः DE, DF और EF पर इस प्रकार लिए जाते हैं कि $EC = AC$ और $CF = BC$ है। अगर $\angle D = 40^\circ$ तो, $\angle ACB$?

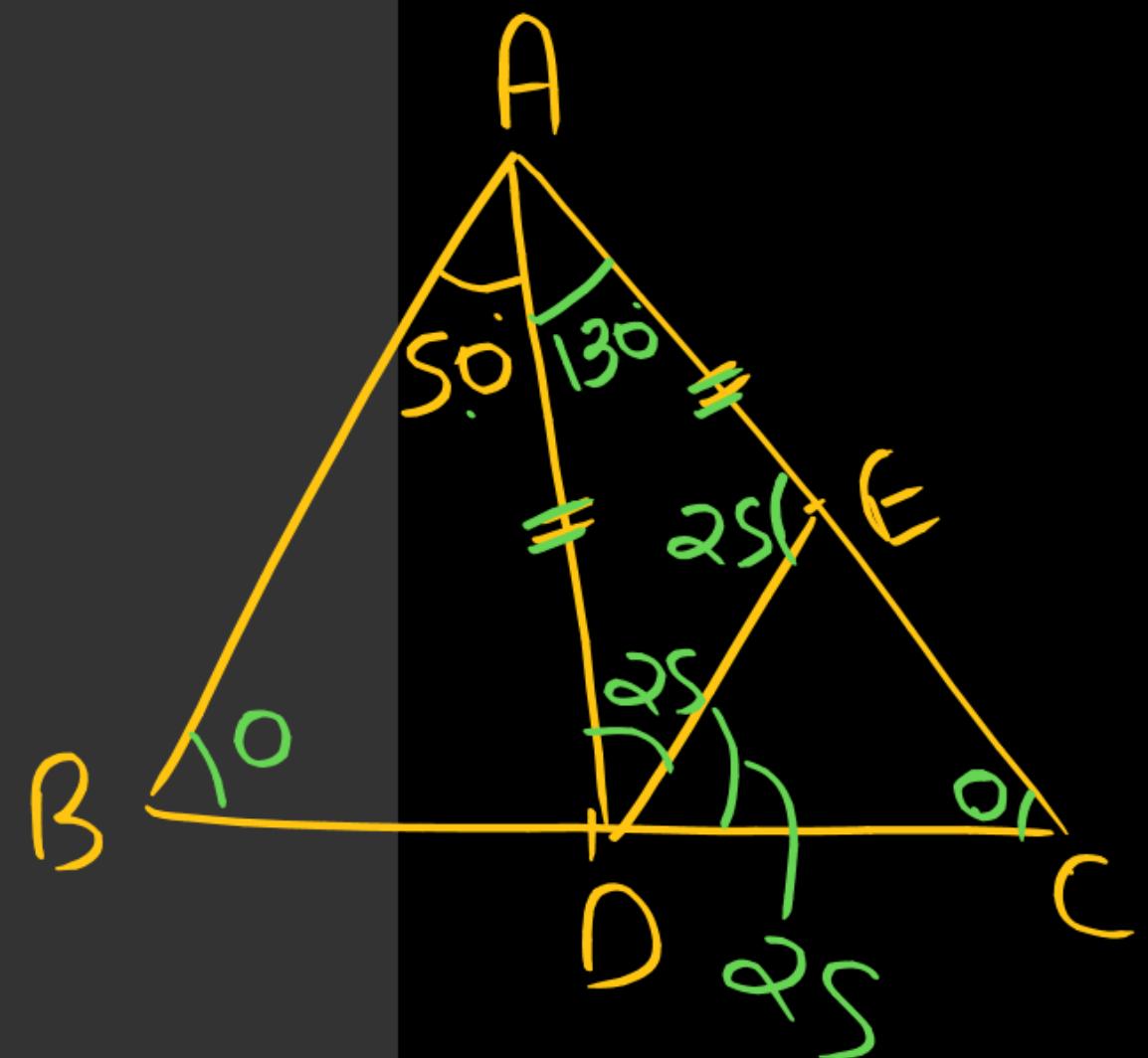




In a $\triangle ABC$, CD is the angle bisector of interior $\angle C$. Which meets AB at D. M is a point on CD such that $AD = AM$. If $\angle B = 59^\circ$ find $\angle MAC$.

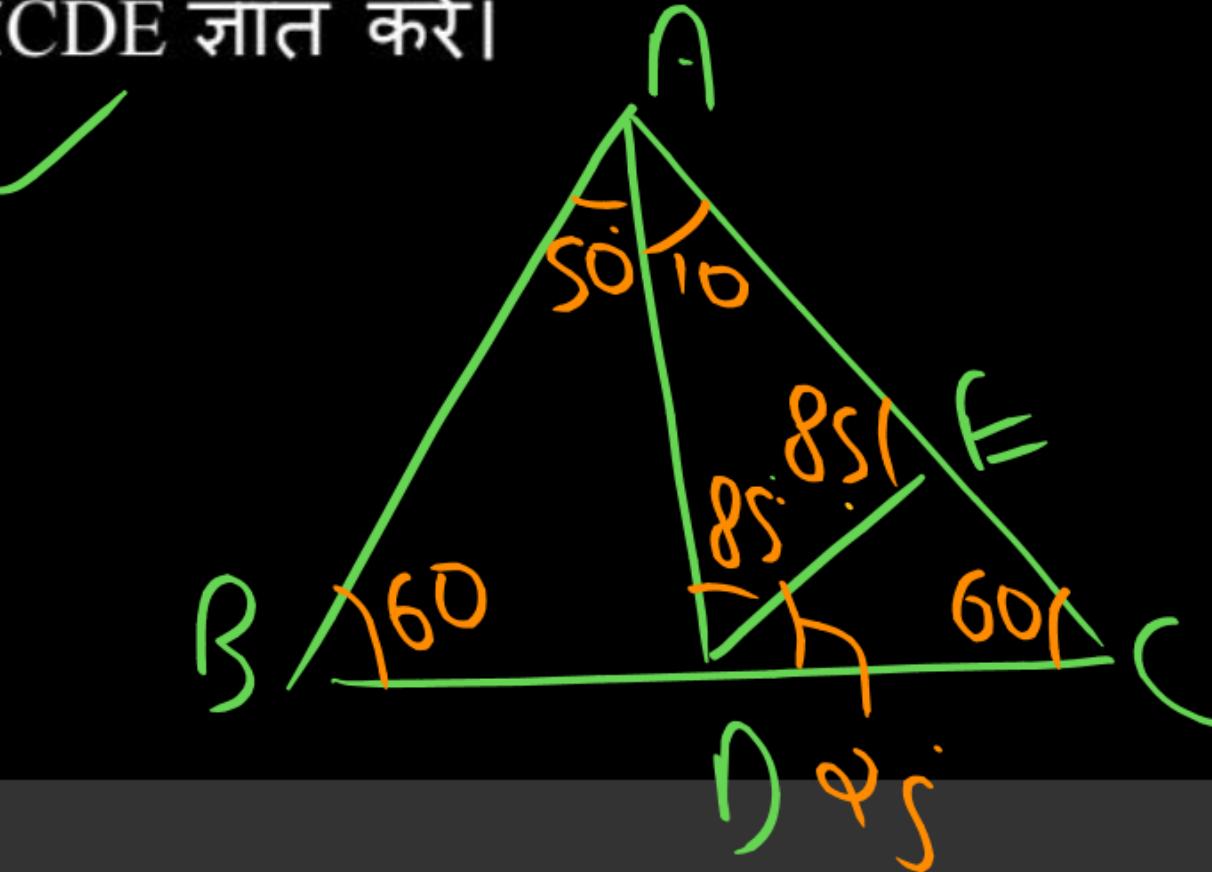
$\triangle ABC$ में अतः : कोण $\angle C$ का कोण समद्विभाजक CD है, जो AB को D पर मिलता है। बिन्दु M CD पर इस प्रकार है कि $AD = AM$ यदि $\angle B = 59^\circ$ तब $\angle MAC$ का मान क्या होगा





In a ΔABC , $AB = AC$, D is a point on BC such that $\angle BAD = 50^\circ$ and a point E on side AC such that $AE = AD$ find $\angle CDE$.

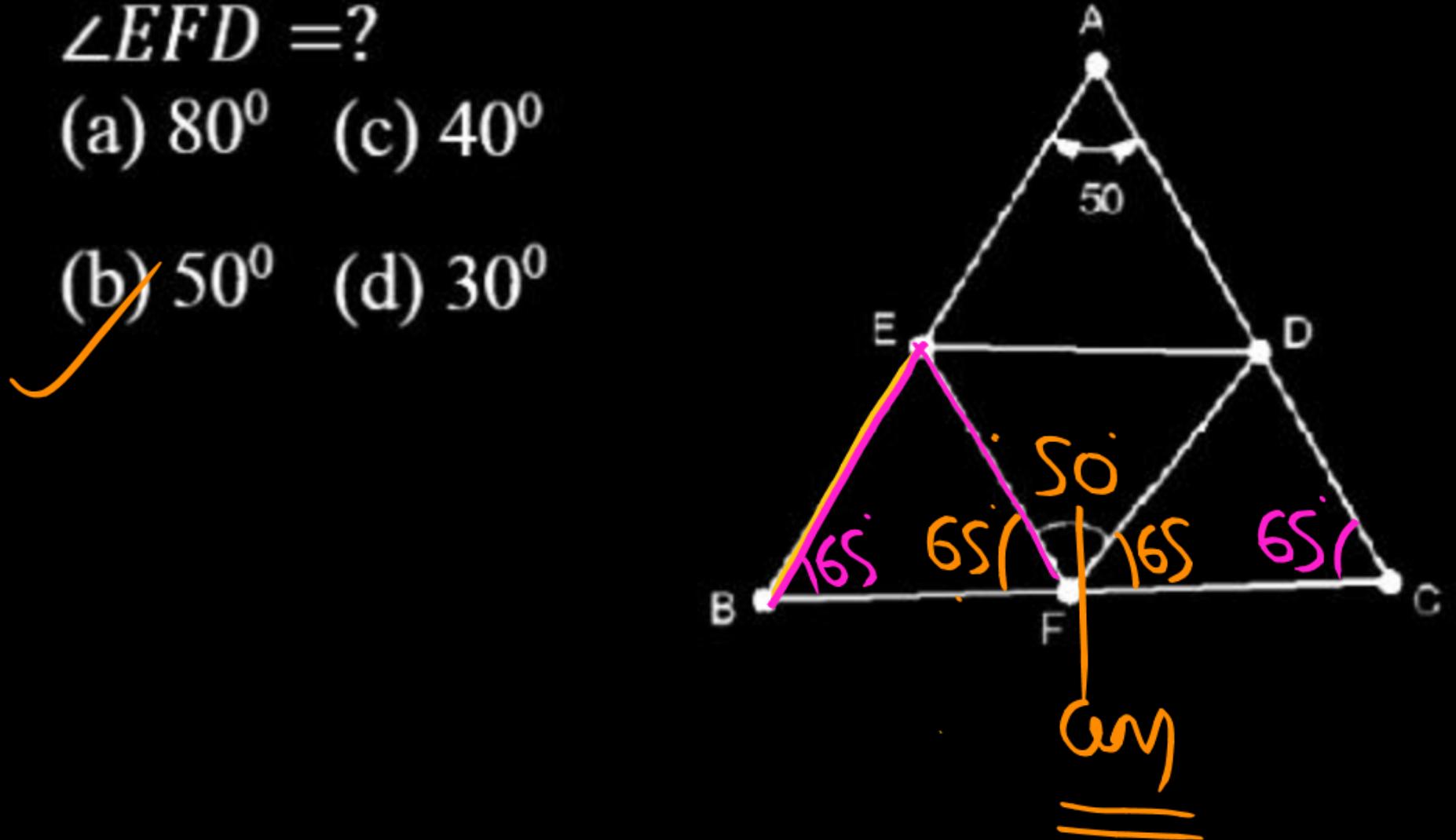
एक ΔABC में, $AB = AC$, BC पर एक बिंदु D इस प्रकार है कि $\angle BAD = 50^\circ$ और भुजा AC पर एक बिंदु E इस प्रकार है कि $AE = AD$ $\angle CDE$ ज्ञात करें।



In triangle ABC, BE = EF, DF = DC, $\angle A = 50^\circ$, $\angle EFD = ?$

त्रिभुज ABC में, BE = EF, DF = DC, $\angle A = 50^\circ$,
 $\angle EFD = ?$

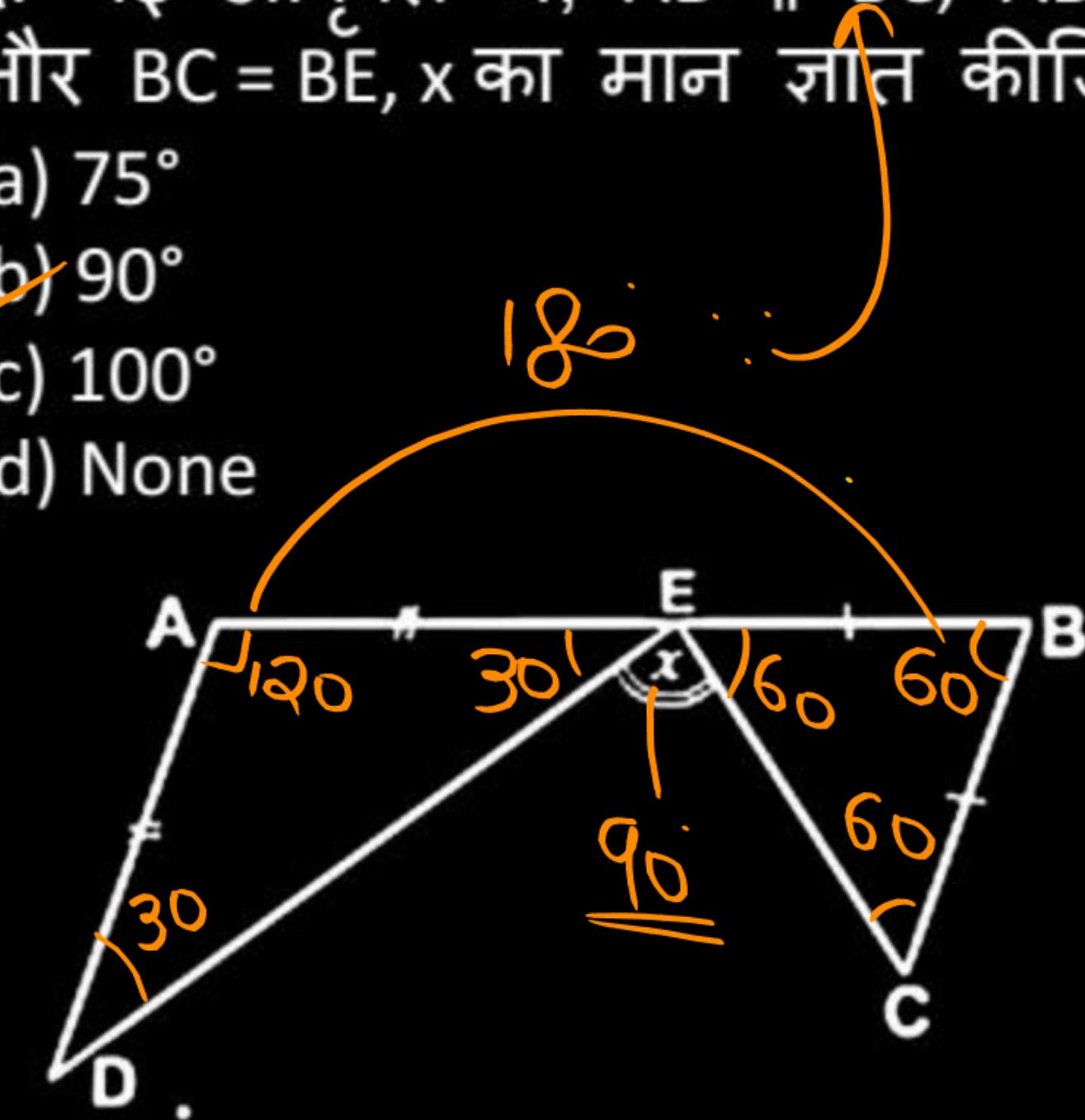
- (a) 80° (c) 40°
(b) 50° (d) 30°



In the given figure, $AD \parallel BC$, $AD = AE$ and $BC = BE$. Find $\angle C$.

दी गई आकृति में, $AD \parallel BC$, $AD = AE$
और $BC = BE$, x का मान ज्ञात कीजिए?

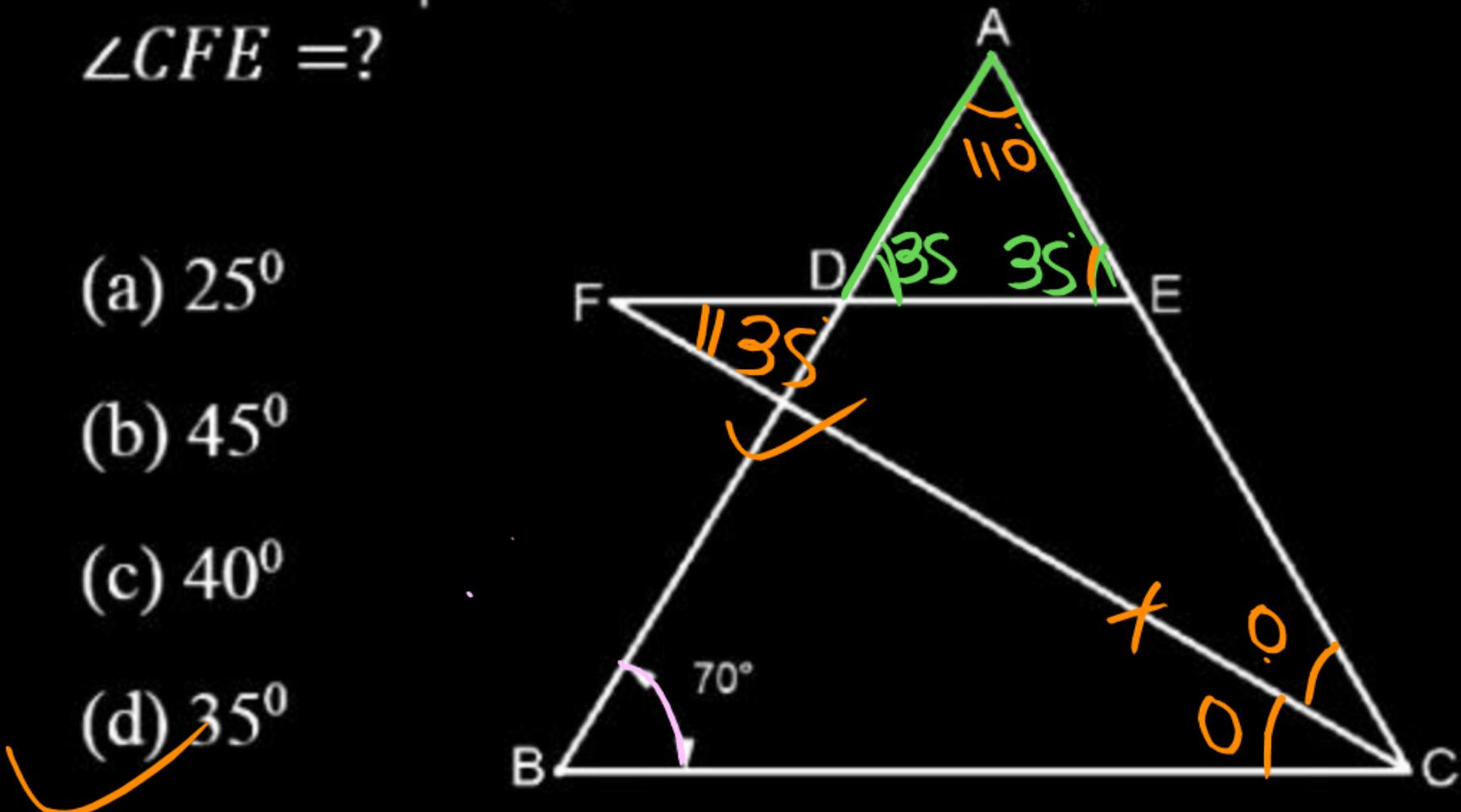
- (a) 75°
 - (b) 90°
 - (c) 100°
 - (d) None



In the given figure. $AD = AE$, CF is an angle bisector of $\angle ACB$. If angle $\angle B = 70^\circ$ then find angle $\angle CFE = ?$

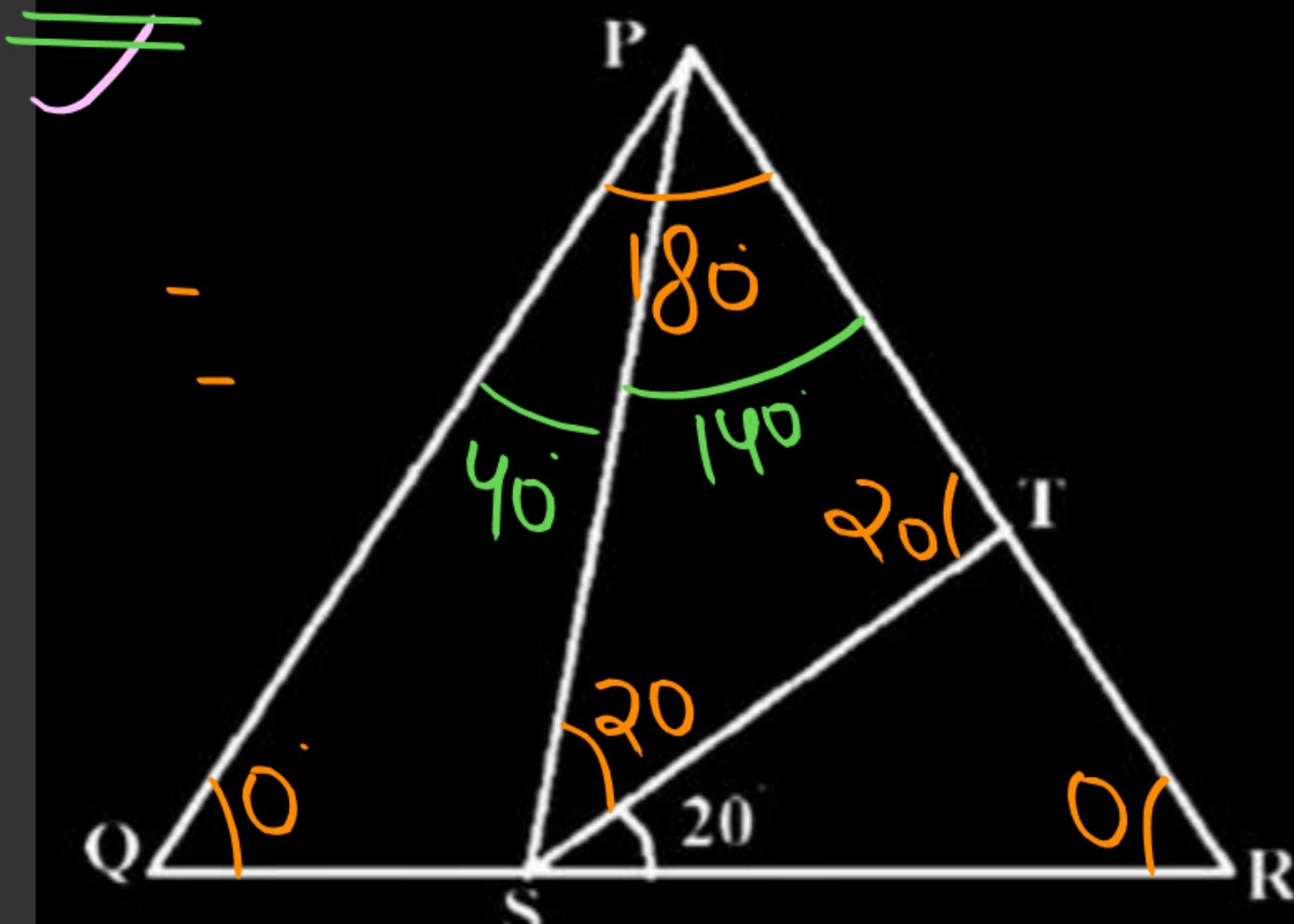
दिए गए चित्र में $AD=AE$, CF कोण समद्विभाजक है $\angle ACB$ का | यदि $\angle B = 70^\circ$ तब ज्ञात कीजिये $\angle CFE = ?$

- (a) 25°
- (b) 45°
- (c) 40°
- (d) 35°



In the following figure PQR is isosceles triangle in which $PQ=PR$, if $PS=PT$ and $\angle TSR = 20^\circ$ then find $\angle QPS = ?$

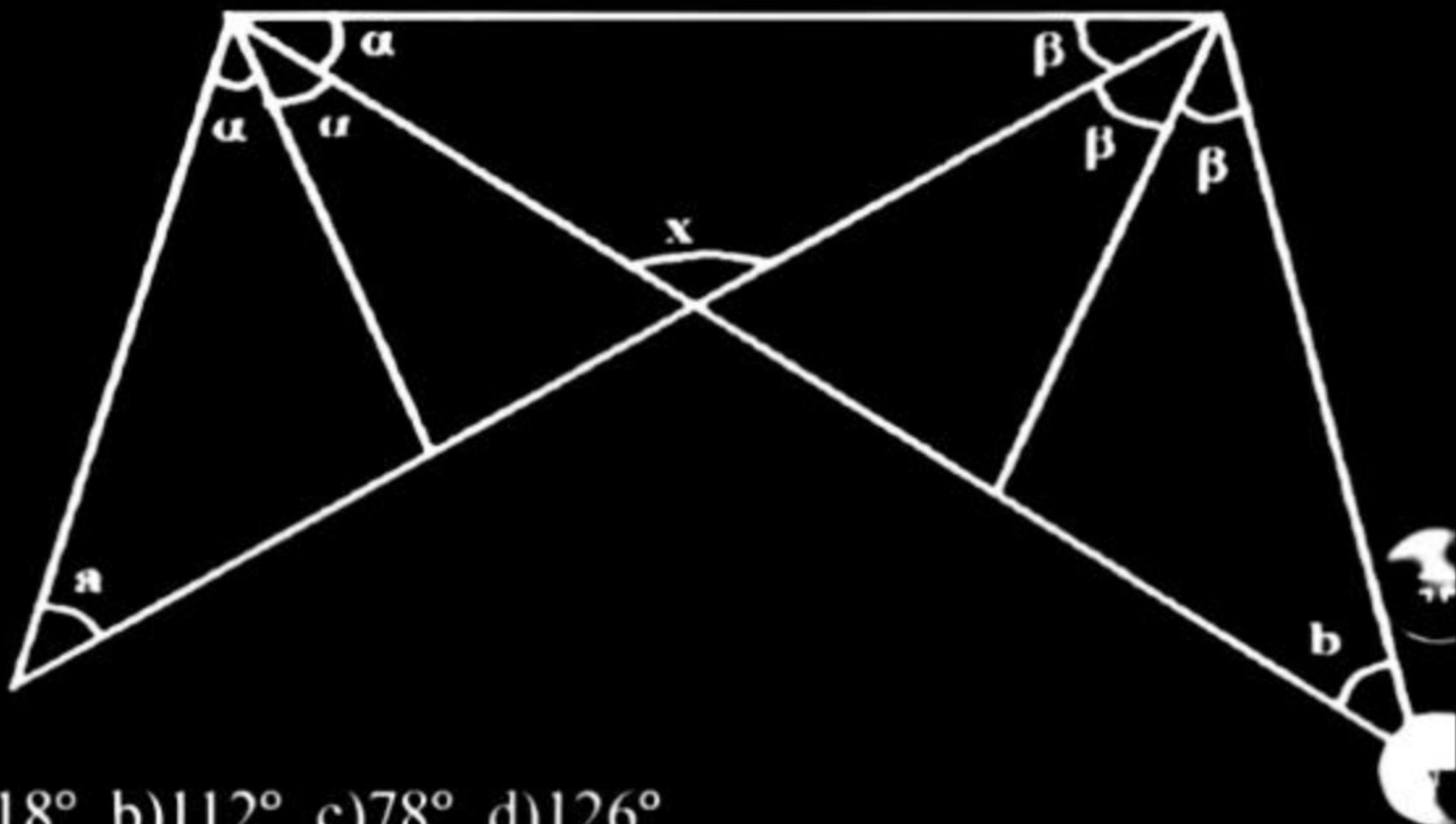
दिए गए चित्र में, त्रिभुज PQR एक समद्विबाहु त्रिभुज है,
 $PQ=PR$ यदि $PS=PT$ और $\angle TSR = 20^\circ$ तब $\angle QPS = ?$



- a) 30° b) 40° c) 20° d) 35°

If $a+b=112^\circ$ then find $x=?$

यदि $a+b=112^\circ$, x का मान क्या होगा।

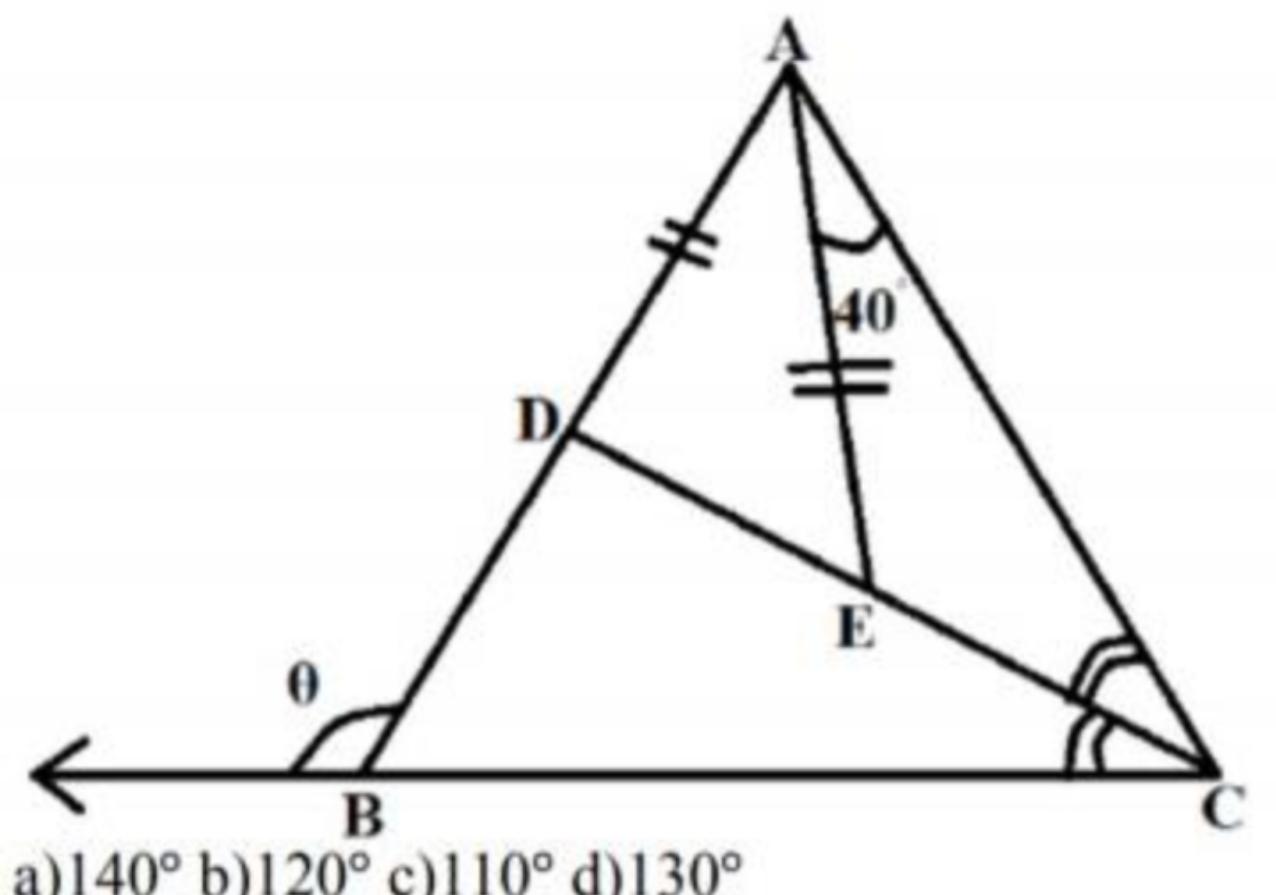


R.W

- a) 118°
- b) 112°
- c) 78°
- d) 126°

In the following figure if $AD=AE$, CD is internal angle bisector of $\angle ACB$. Find θ ?

चित्र में, यदि $AD=AE$, और भुजा CD , $\angle ACB$ का आंतरिक कोण समद्विभाजक है, θ का मान क्या होगा-



- a) 140°
- b) 120°
- c) 110°
- d) 130°

R.W
=====

Sides properties of triangle }

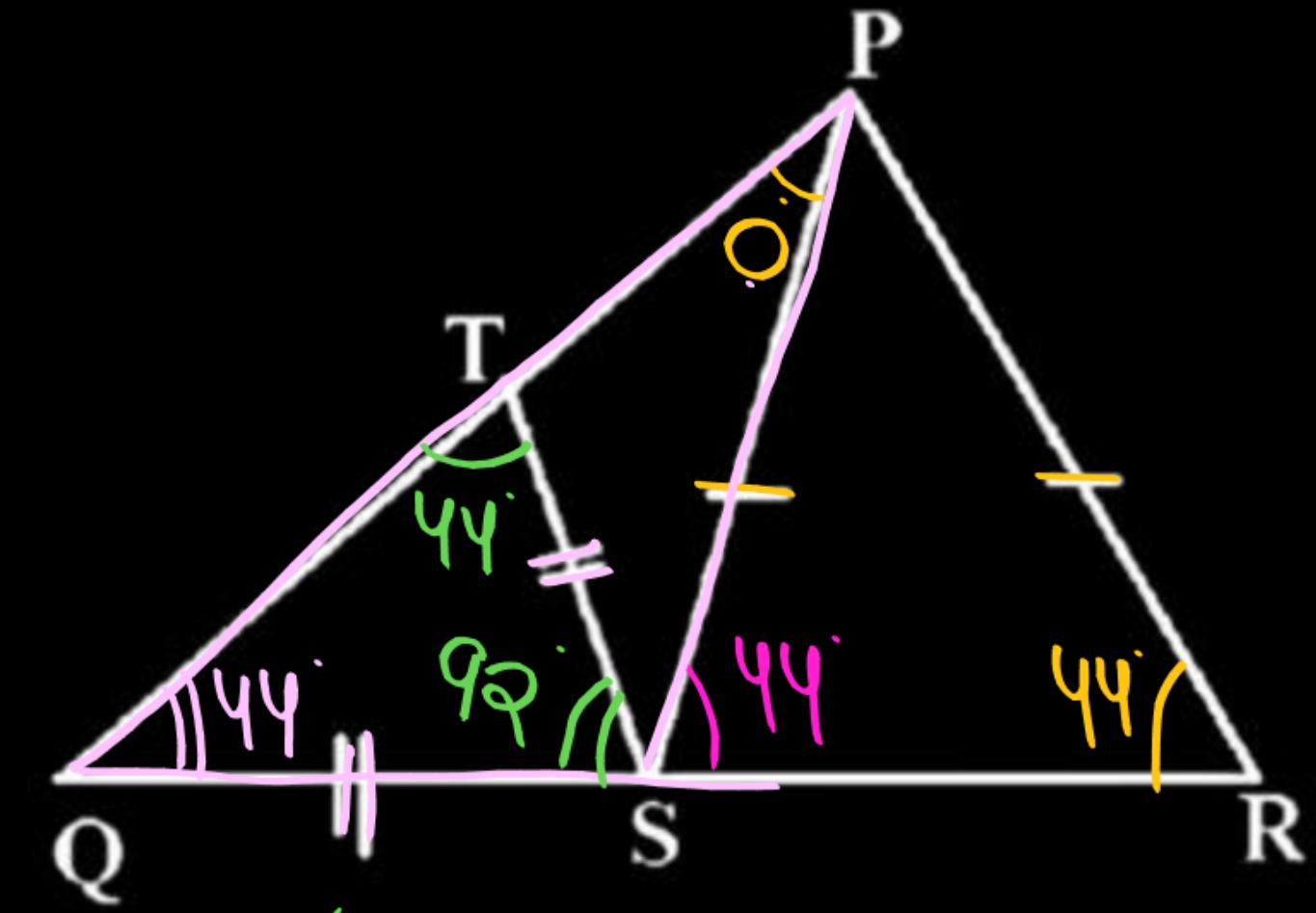
base area →

Sine rule

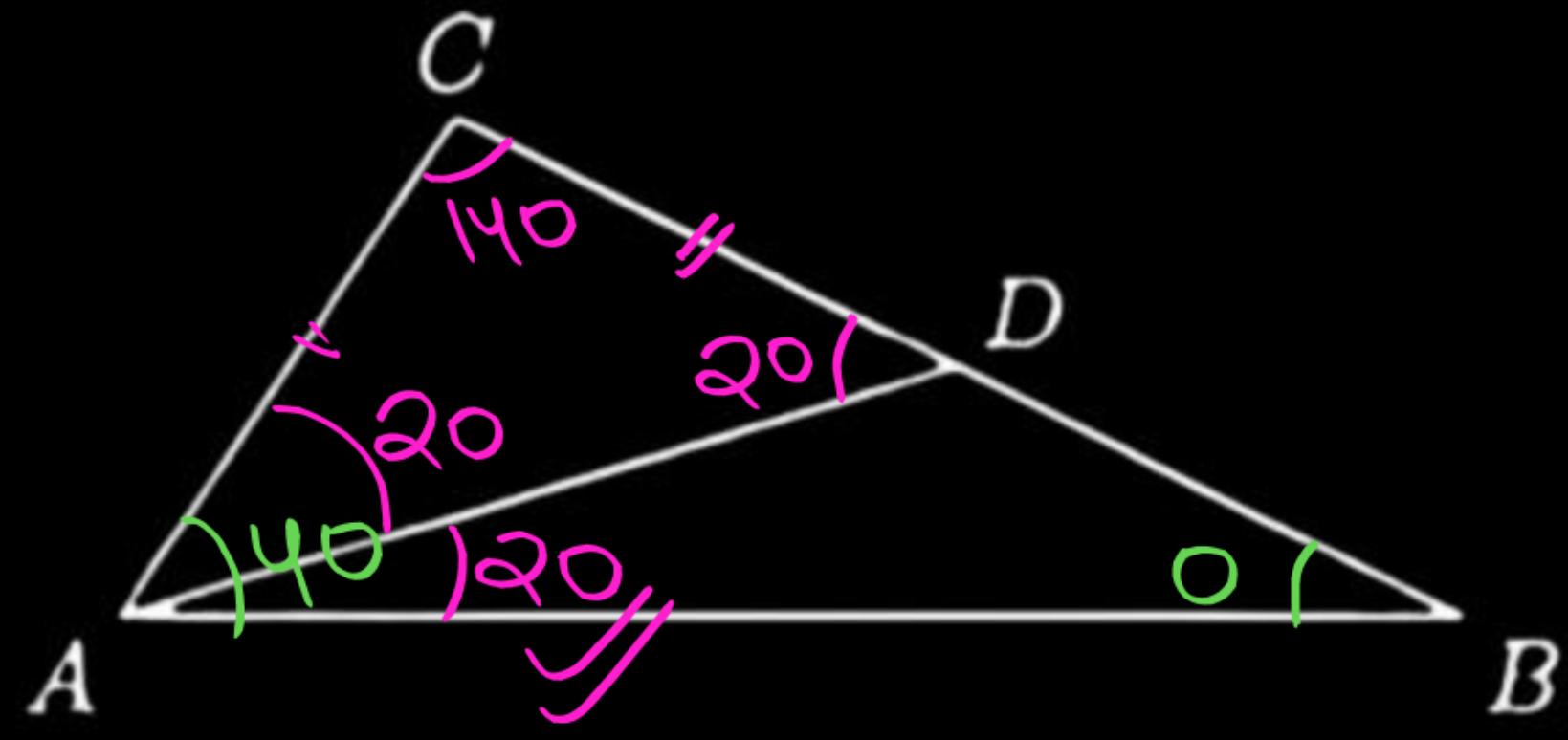
In the triangle PQR, S and T are two points on sides QR and PQ respectively such that QS=ST, PS=PR and $\angle PRQ - \angle QPS = 44^\circ$ then find the $\angle QST$?
 (diagram is not drawn to scale)?

त्रिभुज PQR में, भुजा QR और PQ पर क्रमशः दो बिंदु S और T इस प्रकार हैं कि QS=ST, PS=PR और $\angle PRQ - \angle QPS = 44^\circ$ तब $\angle QST$ का मान क्या होगा?

$$\begin{aligned} & \angle PRQ - \angle QPS = 44^\circ \\ & \qquad\qquad\qquad \downarrow \\ & \qquad\qquad\qquad O \\ & \angle PRQ = 44^\circ \end{aligned}$$



- a) 88° b) 92° c) 69° d) 122°



$$\angle CAB - \angle ABC = 40^\circ$$



In triangle ABC, $AC = CD$ and $\angle CAB - \angle ABC = 40^\circ$.

What is the measure of $\angle BAD$?

त्रिभुज ABC में, $AC = CD$ और $\angle CAB - \angle ABC = 40^\circ$, $\angle BAD$ का माप क्या है?

- (a) 15°
- (b) 20°
- (c) 40°
- (d) 30°