

SSC FOUNDATION



सम्यान बैच

समय से तैयारी, समय से सफलता

MATHEMATICS

ज्यामिति

GEOMETRY - DAY 02

★ सबसे सटीक, सबसे बेहतर ★



सटीक
CONCEPT



BEST
STRATEGY



सटीक
PRACTICE



बेहतरीन
RESULT

LIVE STREAM : 11:00 AM

BY - SHASHI SIR



$$a^2 + b^2 = c^2$$





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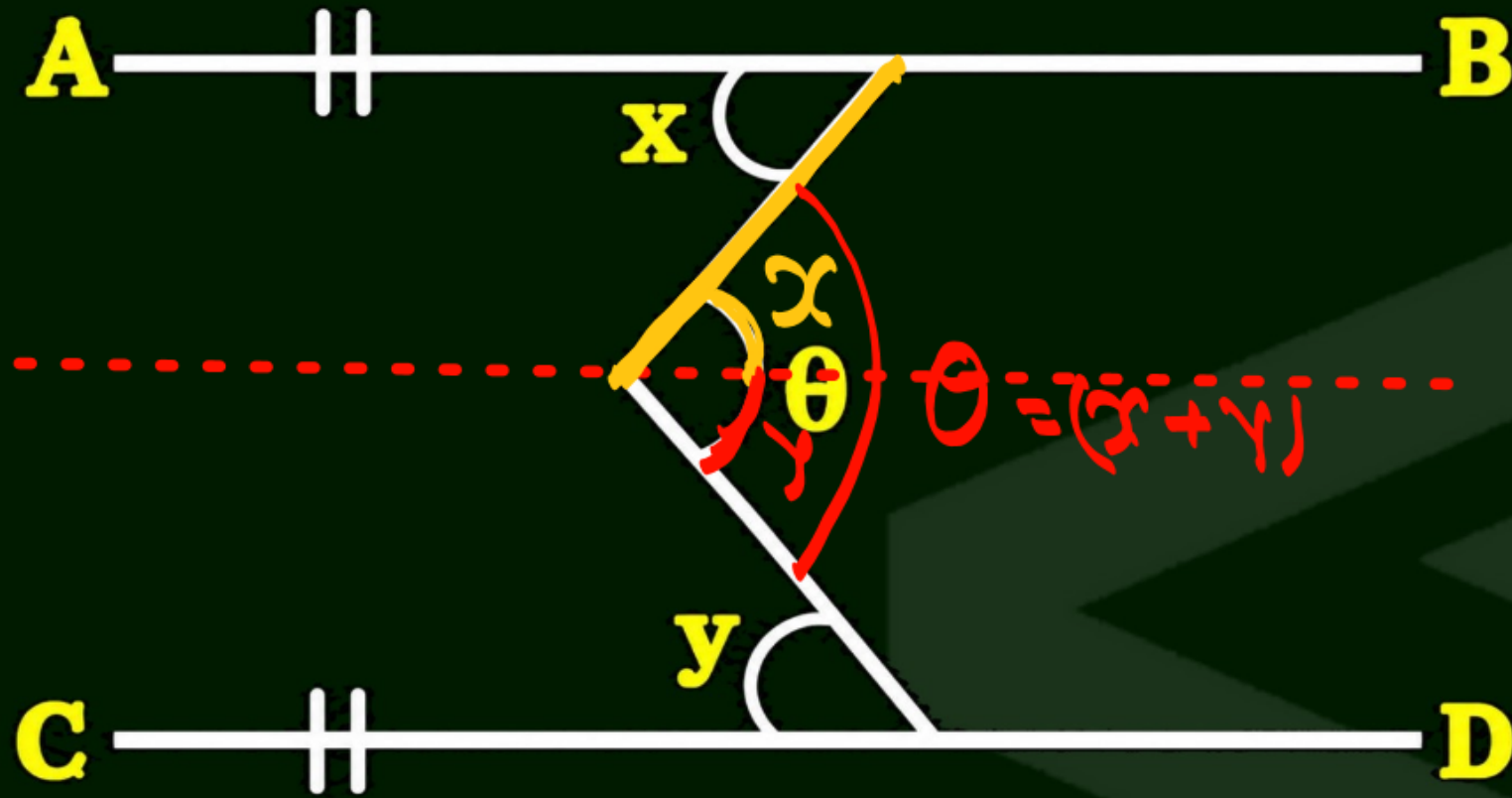
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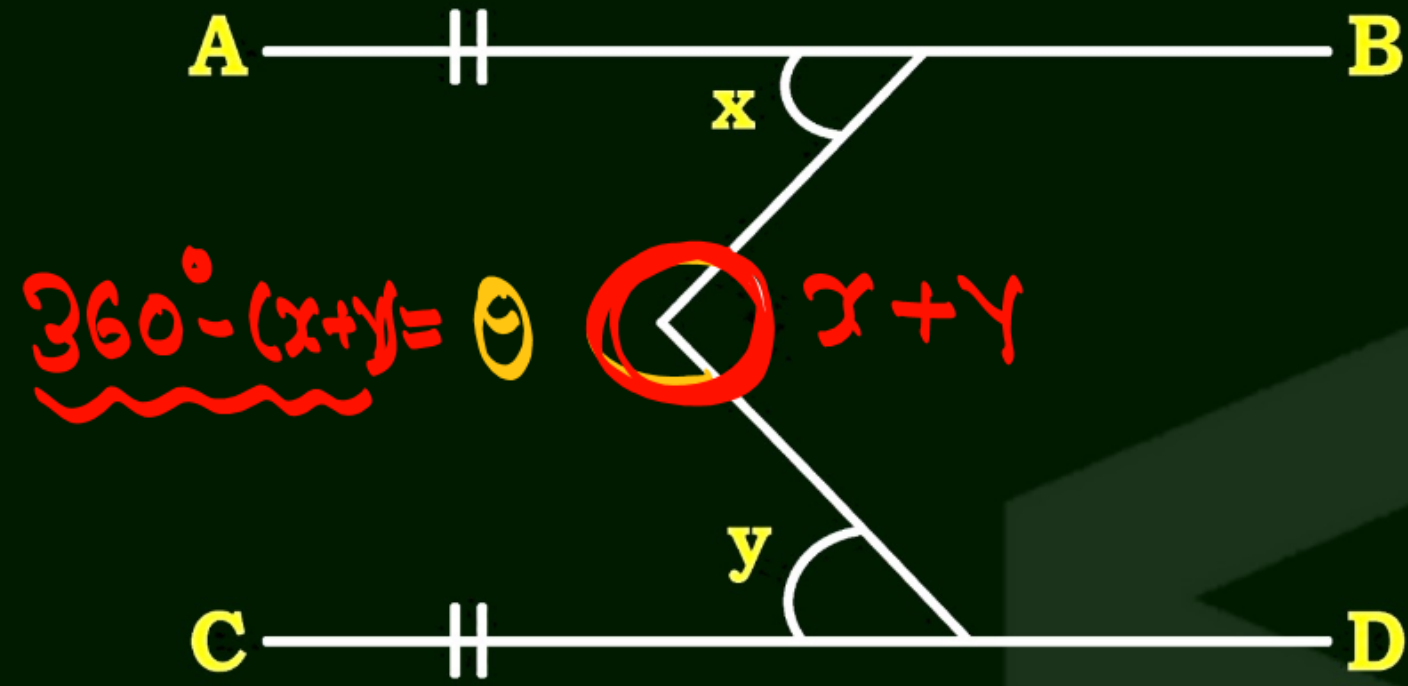
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LINE AND ANGLES



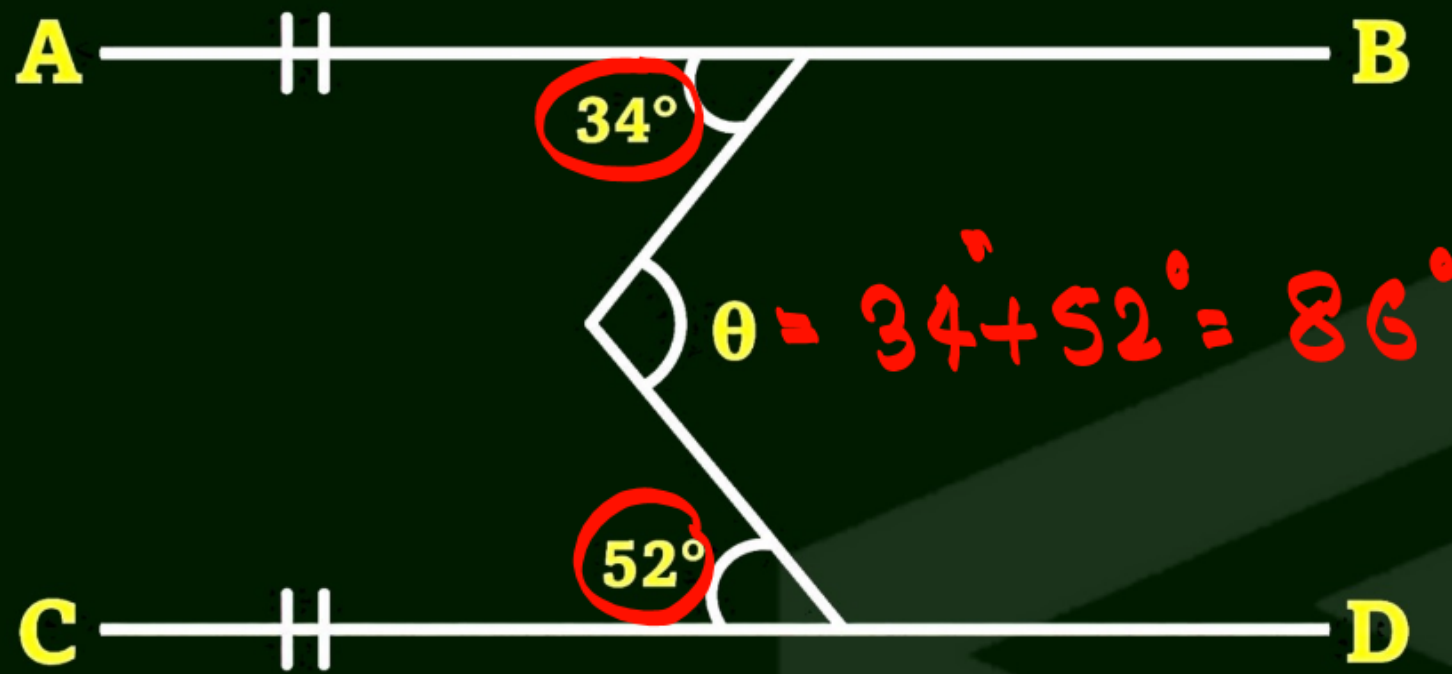
If $AB \parallel CD$

Then, $\theta = (x + y)$



If $AB \parallel CD$

Then, $\theta = 360^\circ - (x+y)$



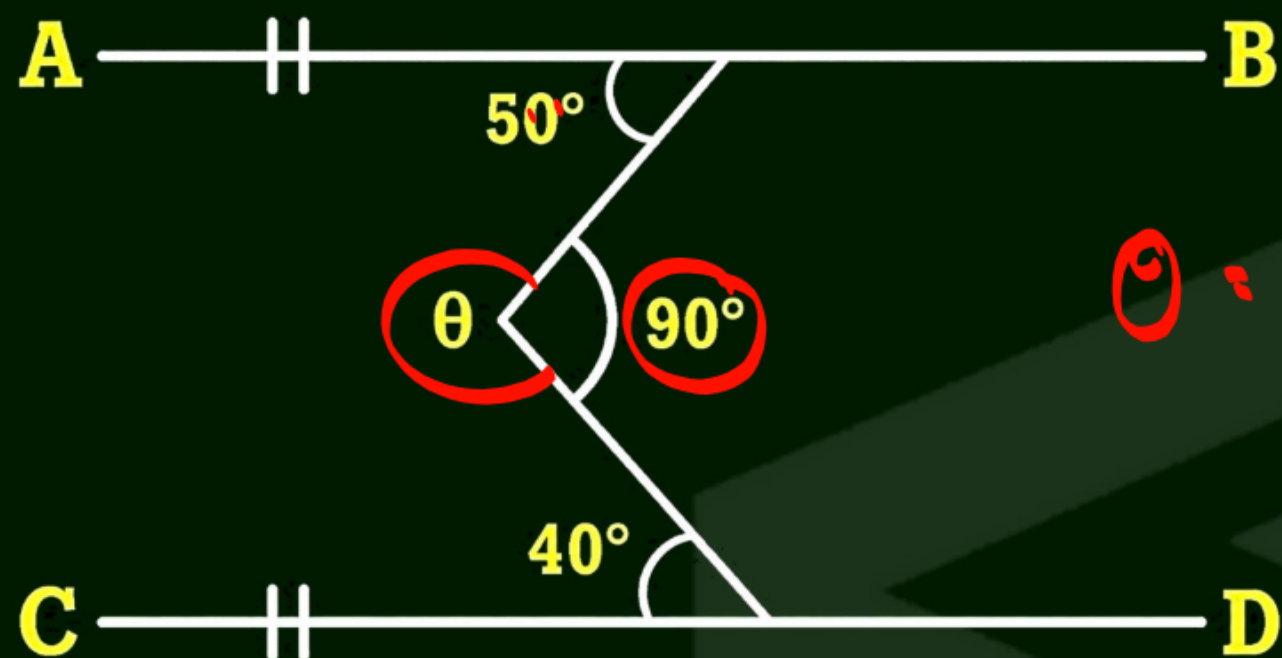
1. Find $\theta = ?$

(a) 76°

✓ (b) 86°

(c) 55°

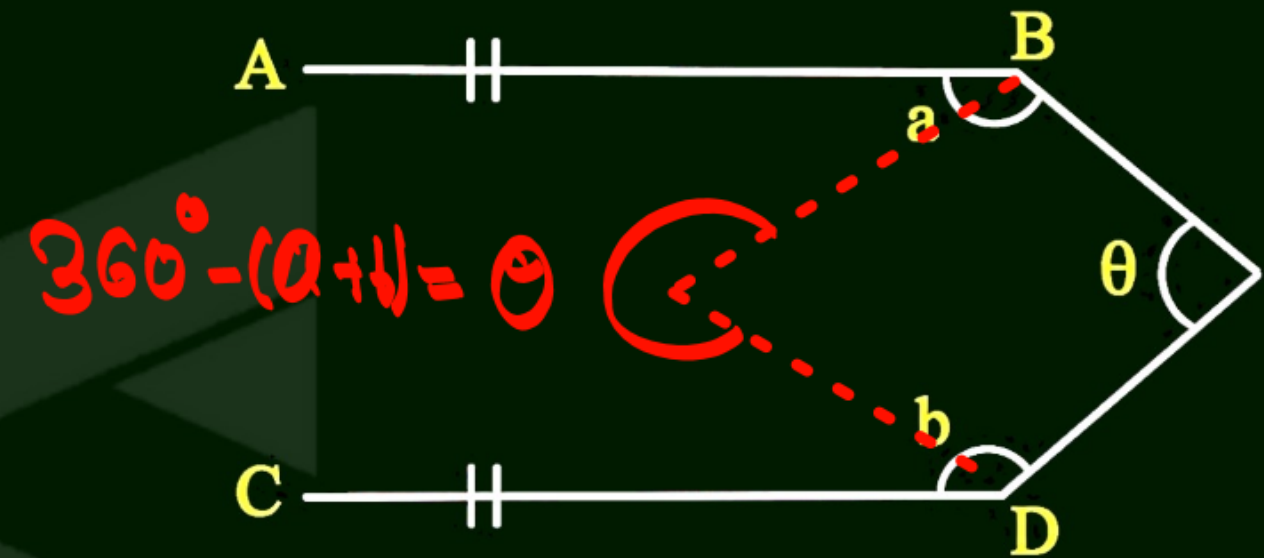
(d) 105°



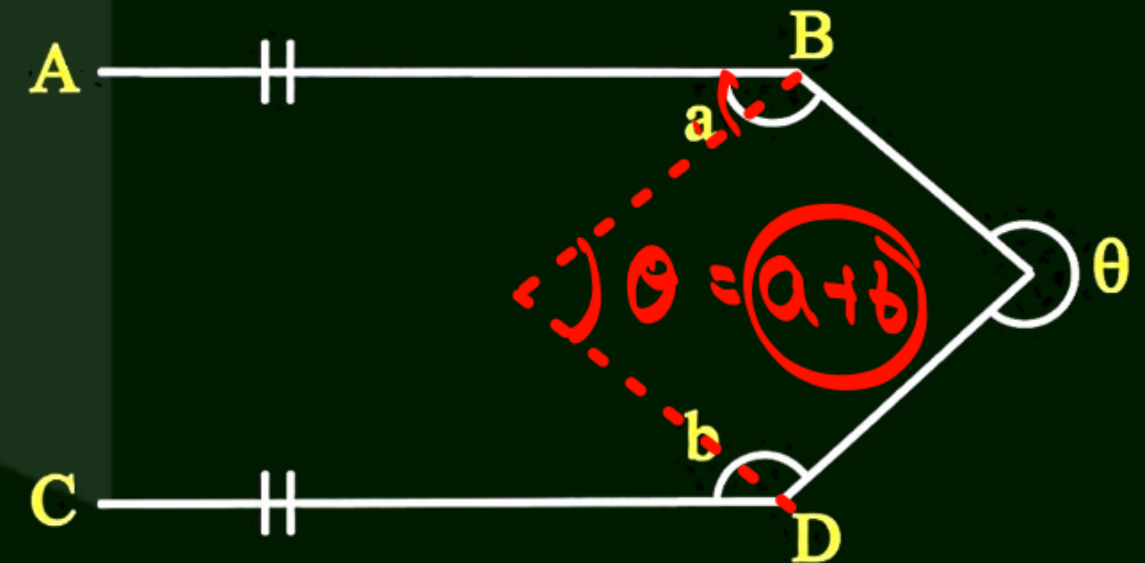
$$\theta = 360^\circ - 90^\circ - 270^\circ = 0^\circ$$

2. Find $\theta = ?$

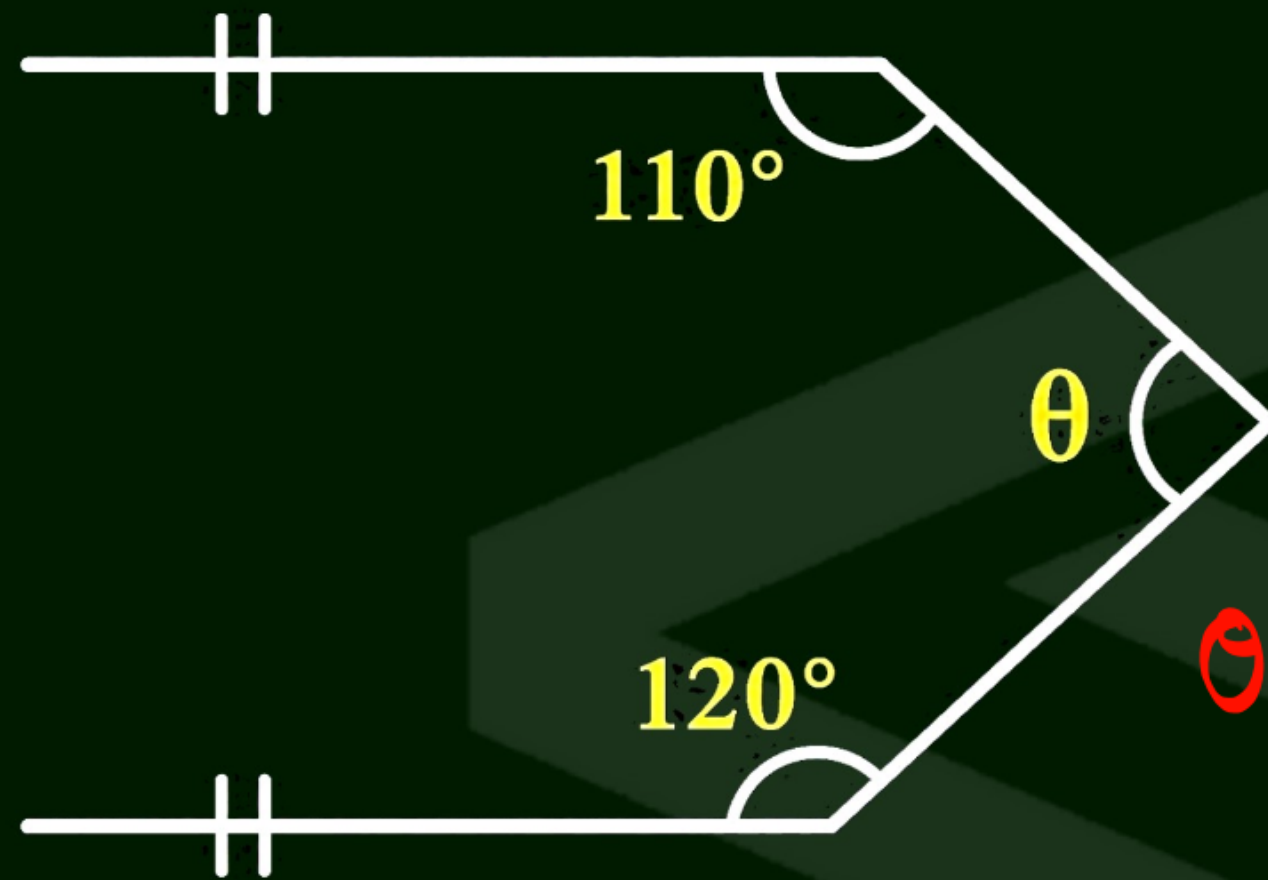
- (a) 90°
- (b) 130°
- ☒ (c) 270°
- (d) 1140°



✓ If $AB \parallel CD$, Then, $\theta = 360^\circ - (a + b)$



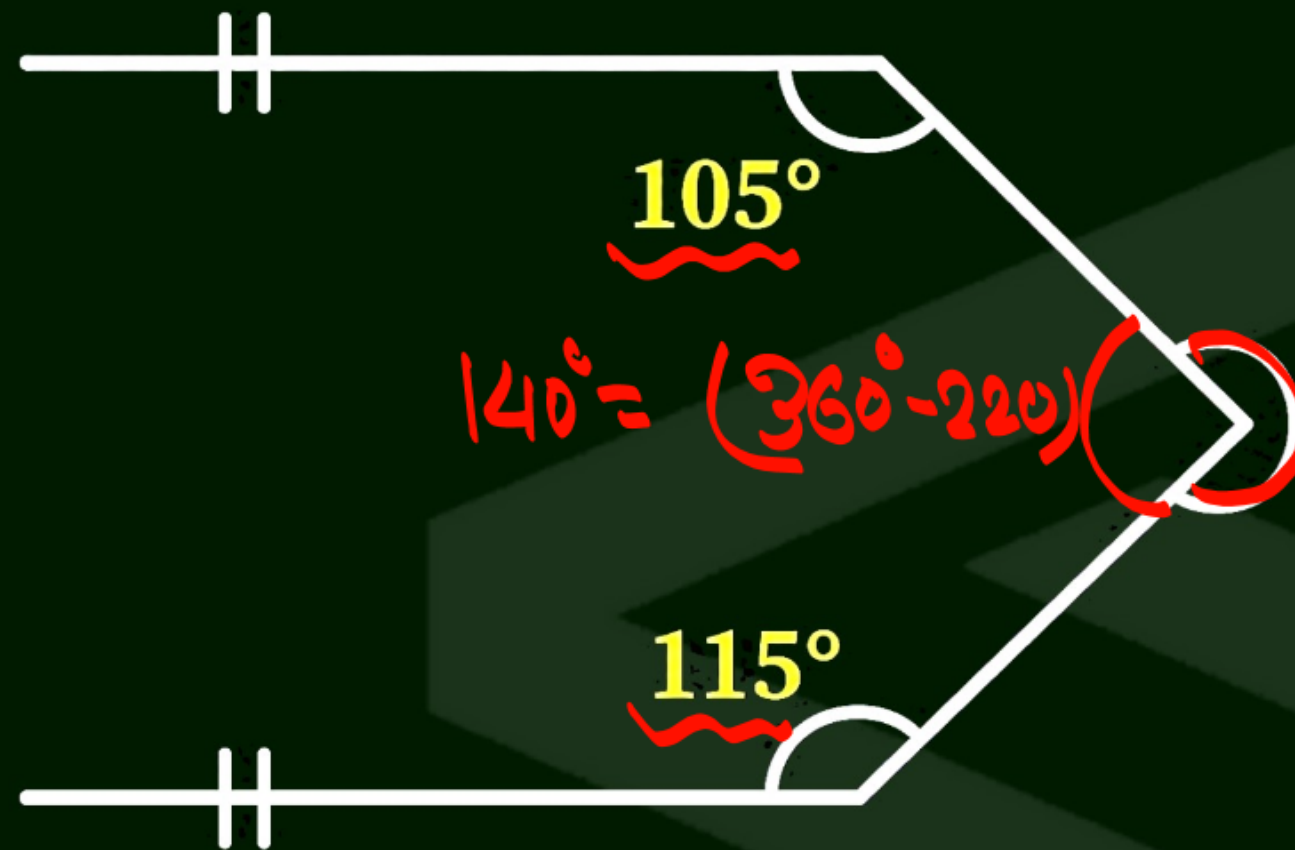
If $AB \parallel CD$, Then, $\theta = (a + b)$



3. Find $\theta = ?$

- (a) 70°
- (b) 60°
- (c) 250°
- ☒ (d) 130°

$$\theta = 360^\circ - (230^\circ) = 130^\circ$$



4. Find $\theta = ?$

(a) 75°

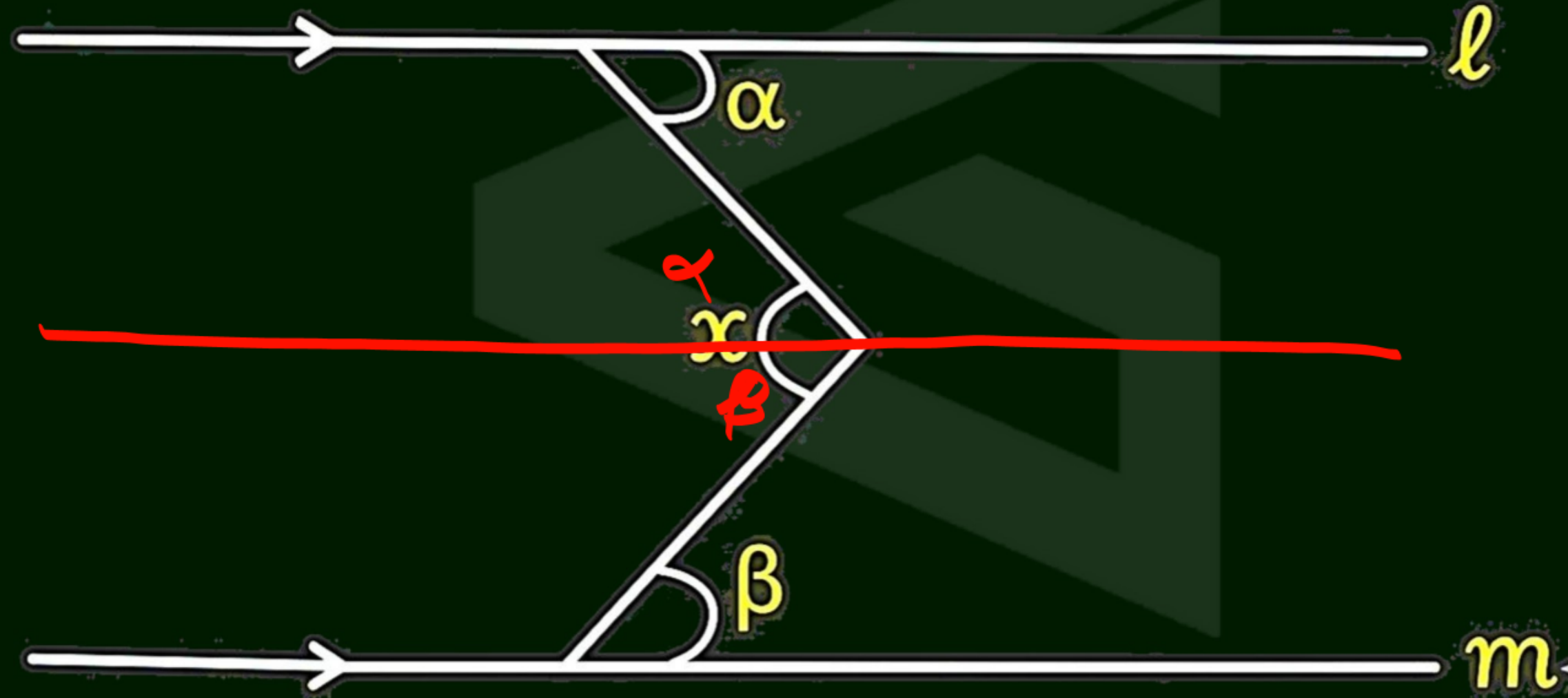
(b) 65°

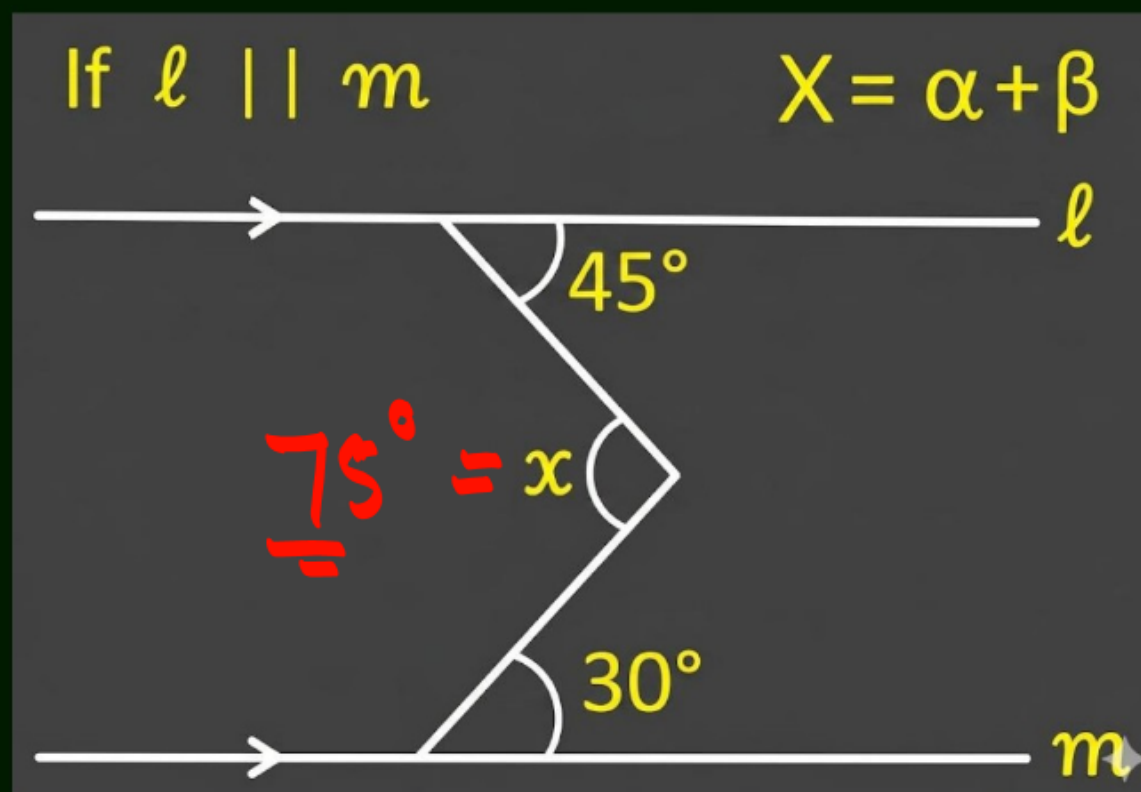
☒ (c) 220°

(d) 140°

If $l \parallel m$

$$X = \alpha + \beta$$





5. If $l \parallel m$ find the value of x in the following figure

यदि $l \parallel m$ है तो निम्नलिखित चित्र में x का मान ज्ञात कीजिए।

(a) 135°

(b) 60°

✓ (c) 75°

(d) 150°

If $l \parallel m$

$$x + y + z = \alpha + \beta + \theta + \gamma$$

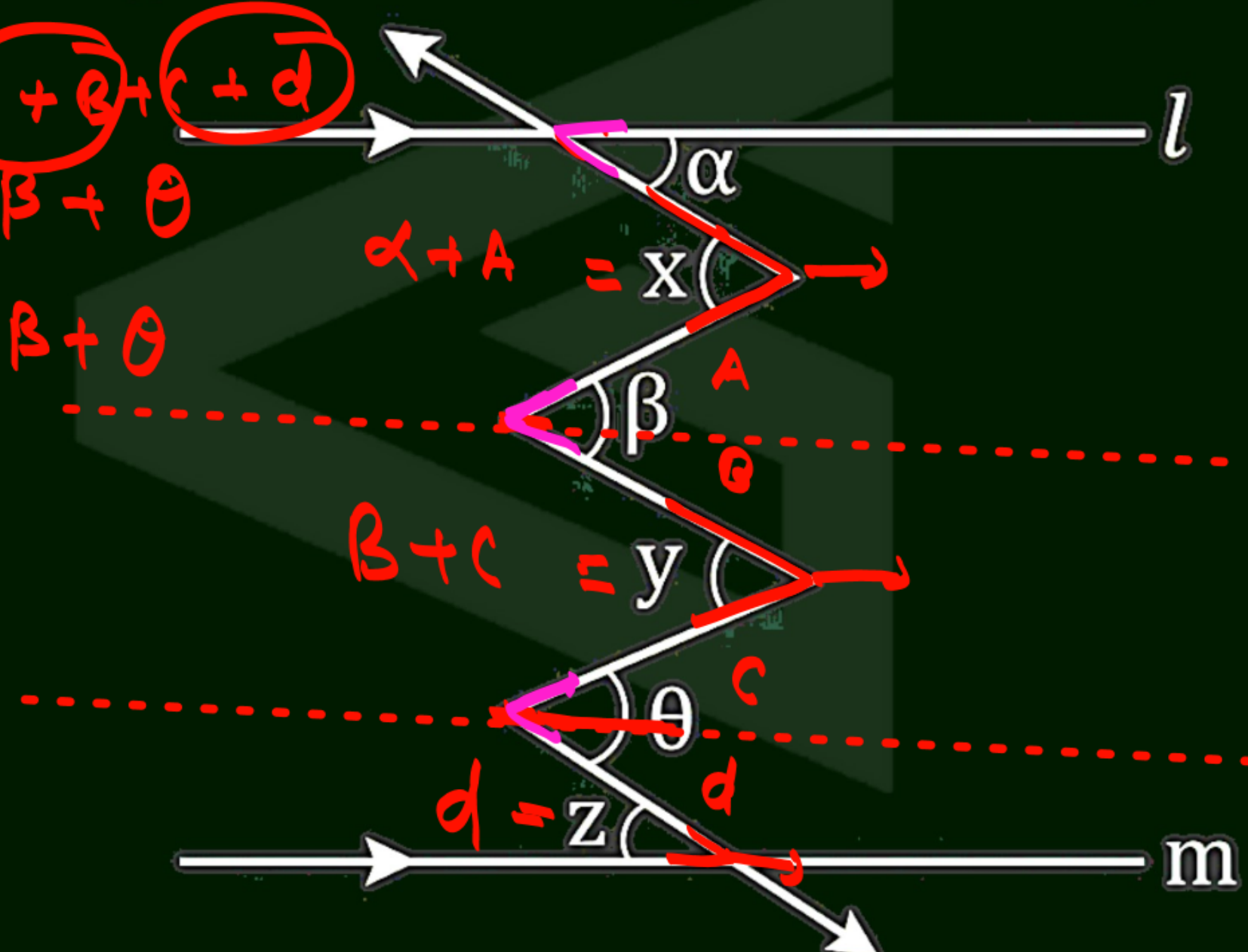
$$x + y + z = \alpha + (A + B) + (C + d)$$

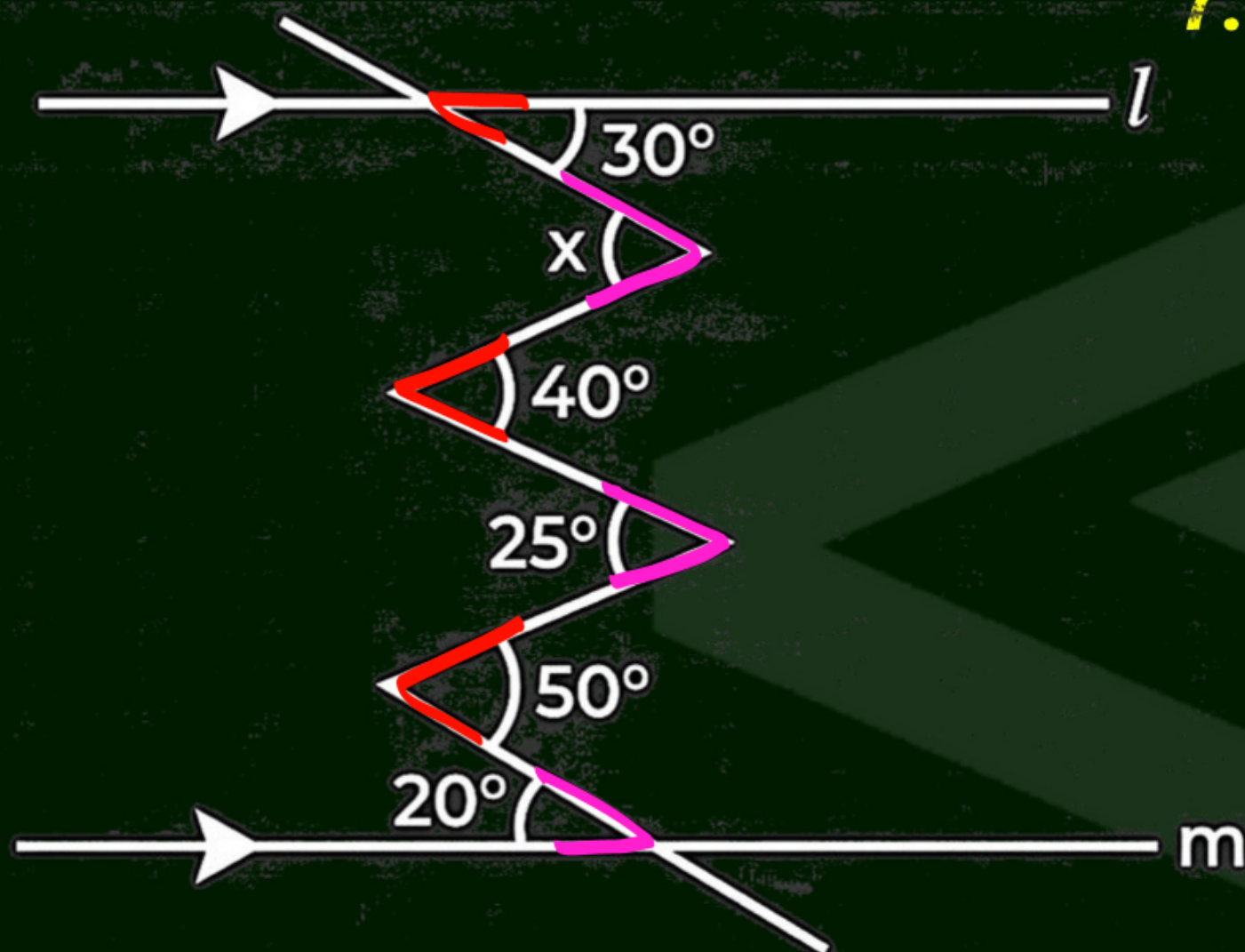
$$= \alpha + \beta + \theta$$

$$x + y + z = \alpha + \beta + \theta$$

$$\beta = A + B$$

$$\theta = C + d$$





7. If m. find the vali lowing figure.

यदि $l \parallel m$ है तो निम्नलिखित चित्र में x का मान ज्ञात कीजिए।

(a) 105°

(b) 60°

☒ (c) 75°

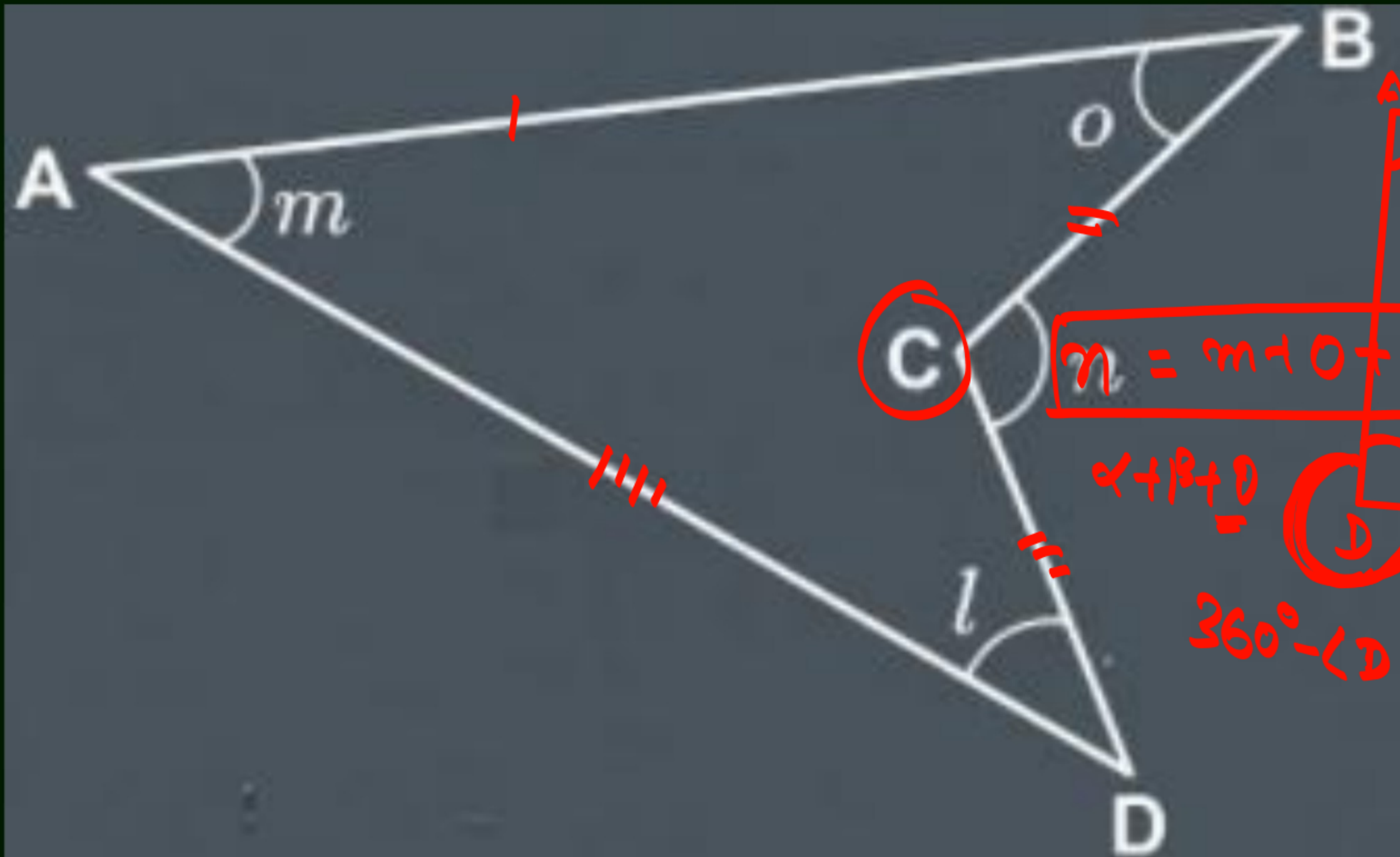
(d) 90°

$$x + 25 + 20 = 30^\circ + 40^\circ + 50^\circ$$

$$x + 45 = 120$$

$$x = 120 - 45$$

$$= \boxed{75^\circ}$$



$$n = m + o + l$$

$$\alpha + \beta + \theta =$$

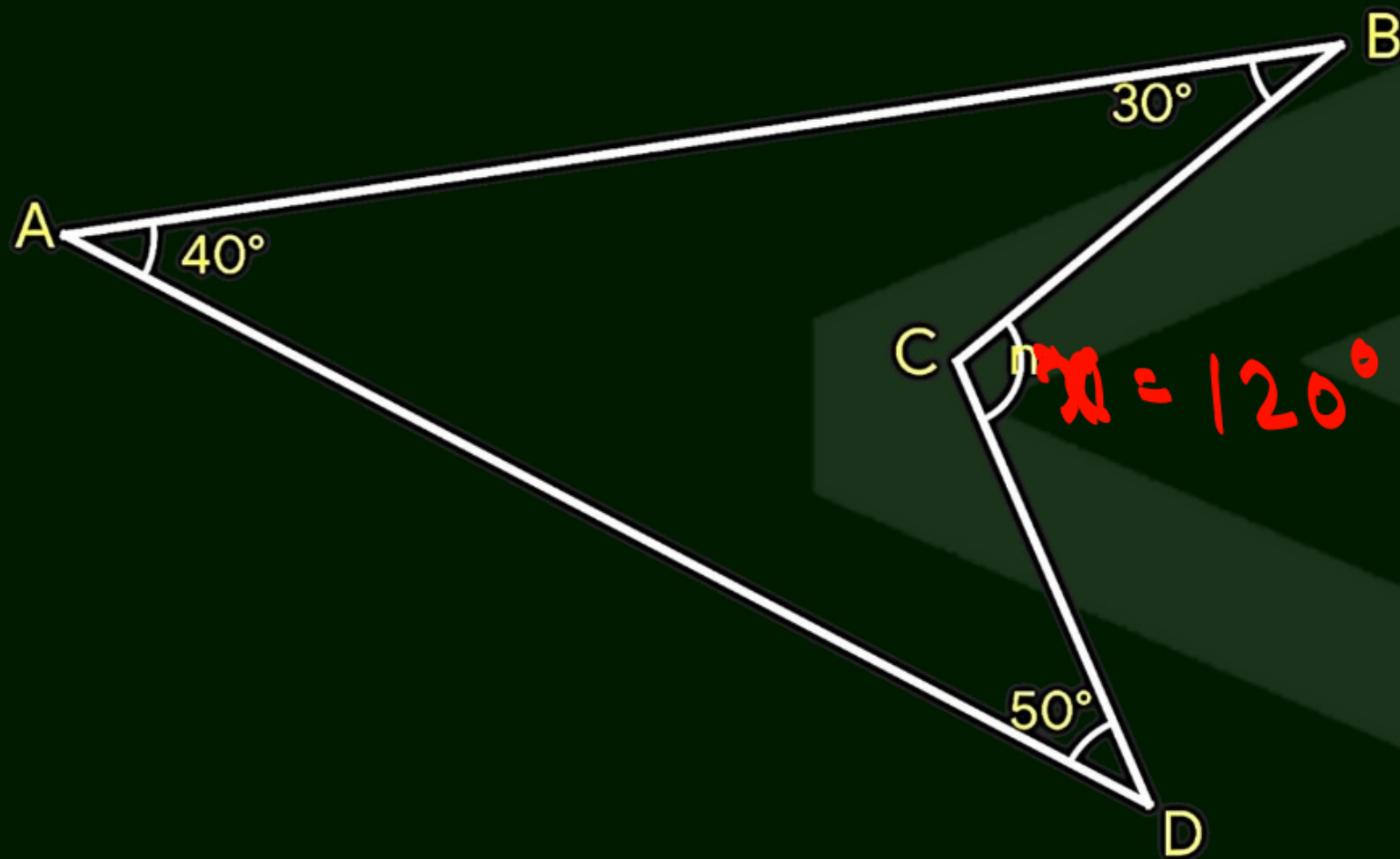
$$360^\circ - \angle D$$

$$\angle A + \angle B + \angle C + \angle D = 360^\circ$$

$$\angle A + \angle B + \angle C = 360^\circ - \angle D$$

8. Find the value of x in the following figure.

निम्नलिखित चित्र में x का मान ज्ञात कीजिए।



(a) 120°

(b) 70°

(c) 80°

(d) 90°

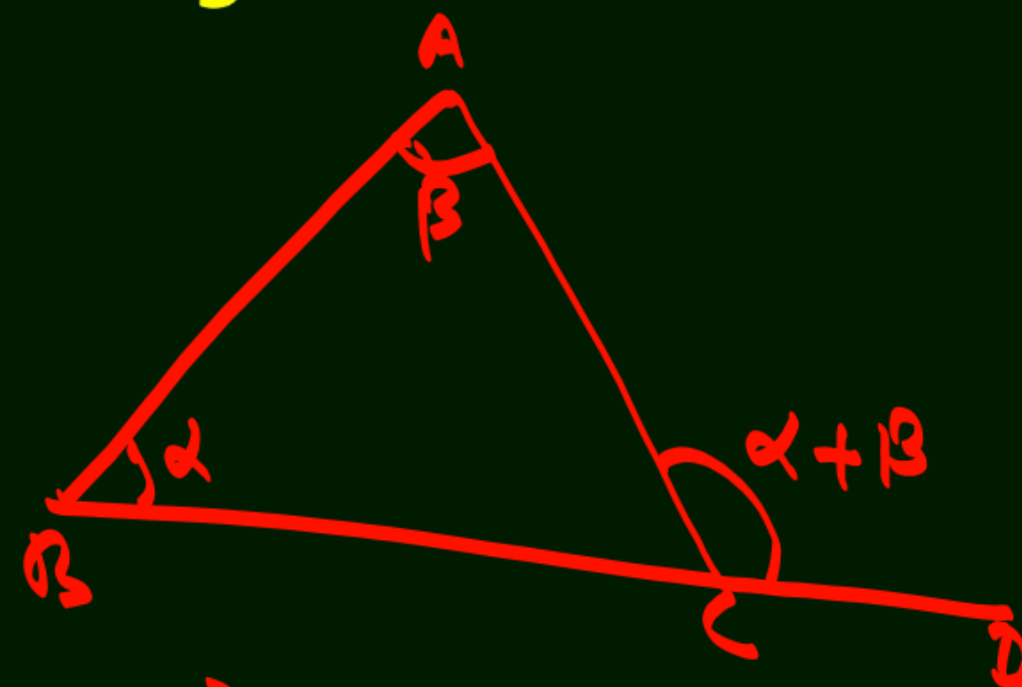
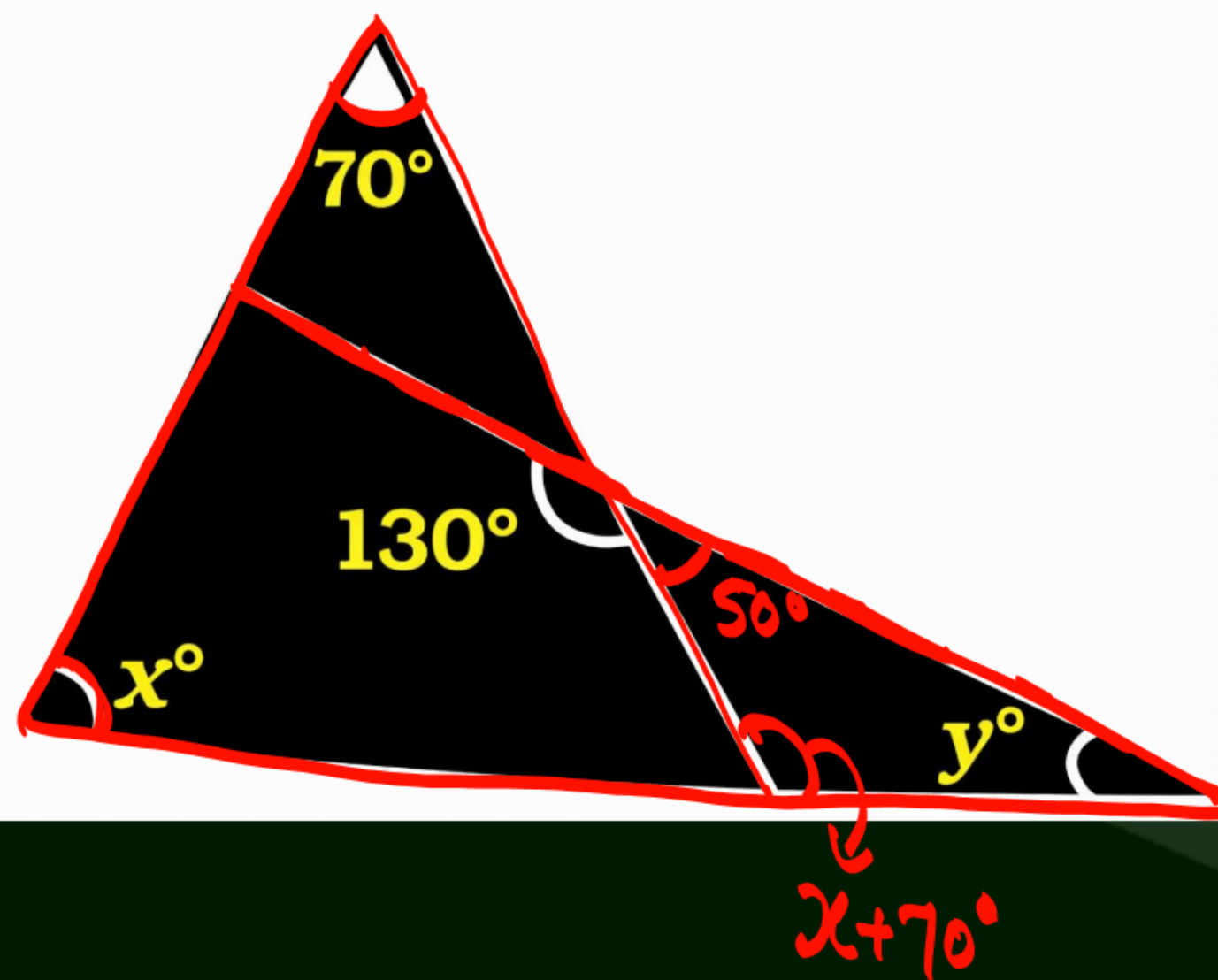
9. Find $x + y =$ if figure is :

(a) 50°

~~(b) 60°~~

(c) 70°

(d) 80°



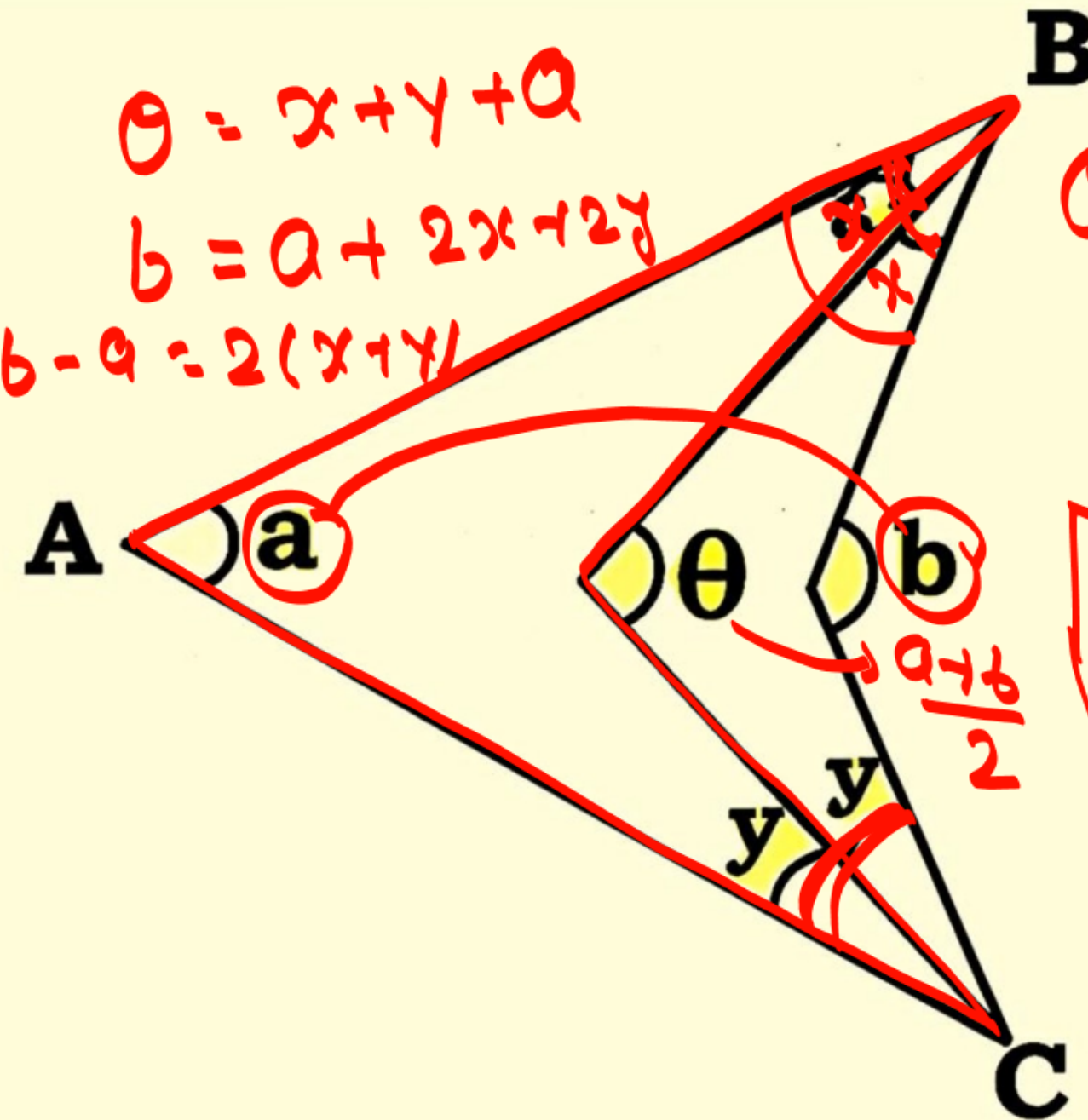
$$50 + y + x + 70 = 180^\circ$$

$$x + y = 180^\circ - 120^\circ$$

$$x + y = 60^\circ$$

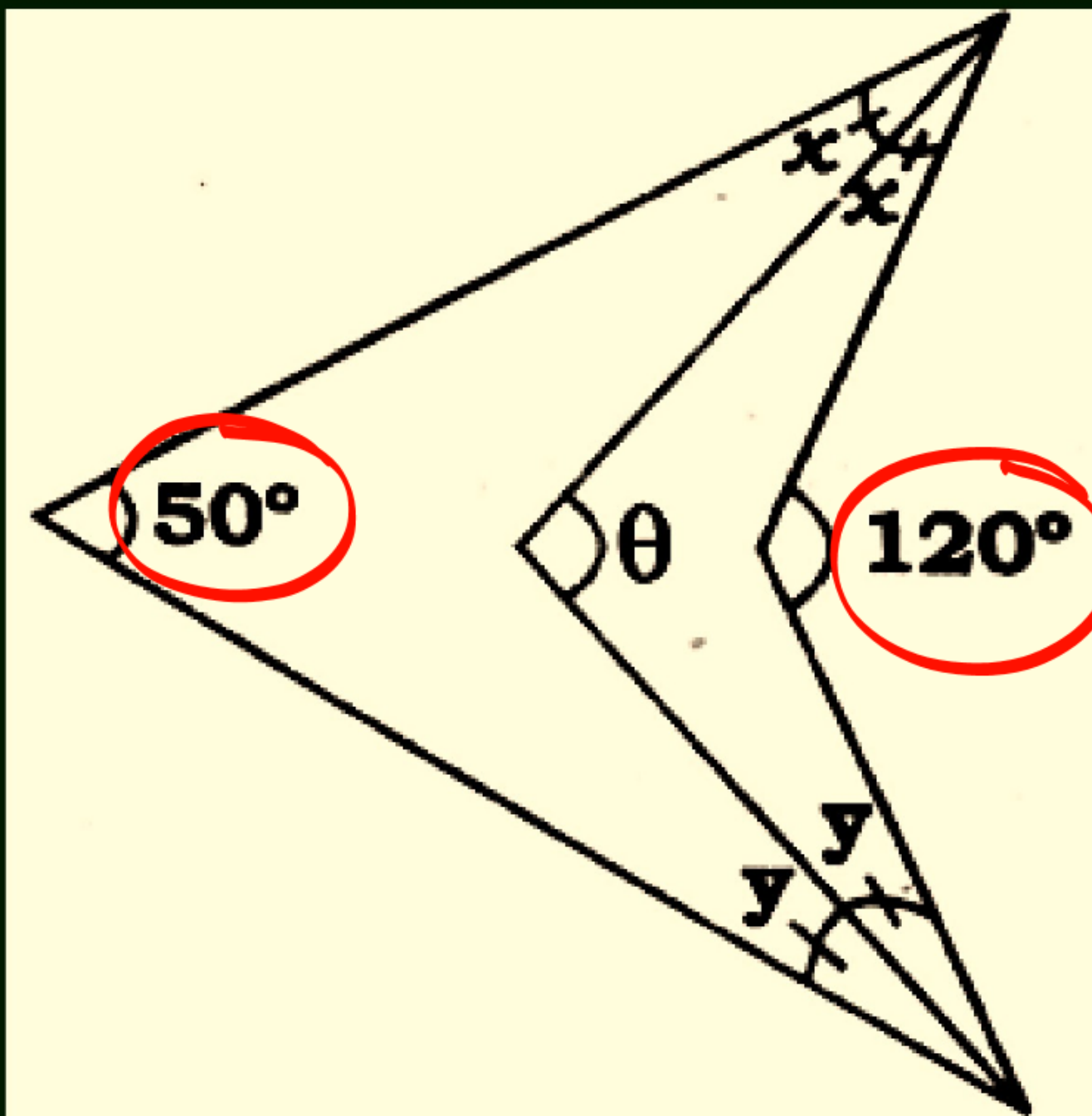
$$\theta = \frac{a + b}{2}$$

$$\begin{aligned}\theta &= x + y + a \\ b &= a + 2x + 2y \\ b - a &= 2(x + y)\end{aligned}$$



$$\begin{aligned}\theta &= \frac{b-a}{2} + a \\ &= \frac{b-a+2a}{2}\end{aligned}$$

$$\theta = \frac{a+b}{2}$$



10. Find $\theta = ?$

- (a) ☒ 85°
- (b) 86°
- (c) 87°
- (d) 88°

$$\theta = \frac{120^\circ + 50^\circ}{2} = \frac{170}{2} = 85^\circ$$

11. Find the value of x ,
 x का मान ज्ञात करें?

(a) 70°

(b) 80°

☒ (c) 90°

(d) 100°

$$x = 30^\circ + 2(a+b) \Rightarrow a+b = \frac{x-30}{2}$$

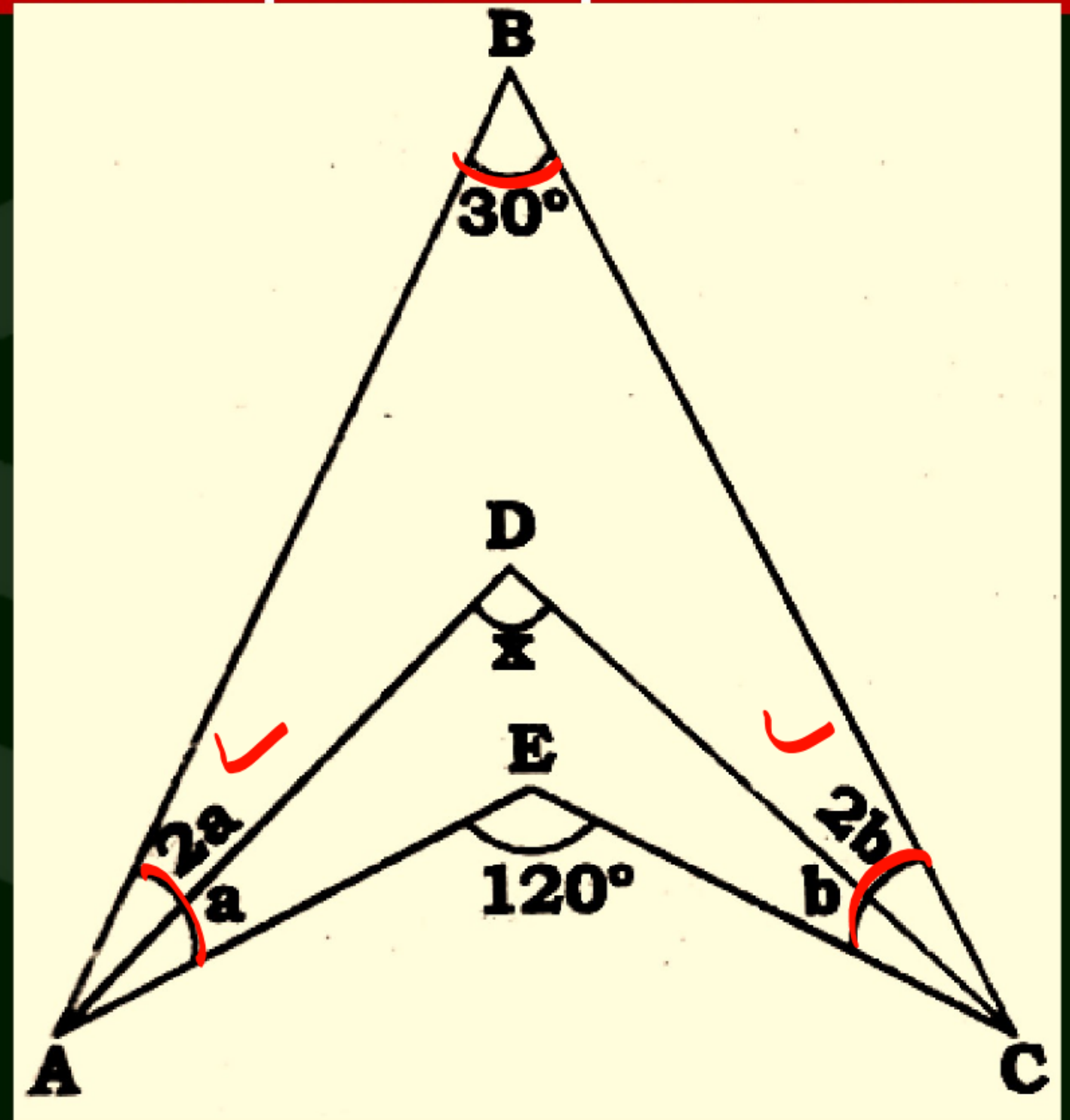
$$120^\circ = 3a + 3b + 30^\circ$$

$$120^\circ = 3(a+b) + 30^\circ$$

$$90^\circ = 3 \times \frac{(x-30)}{2}$$

$$60^\circ = x - 30$$

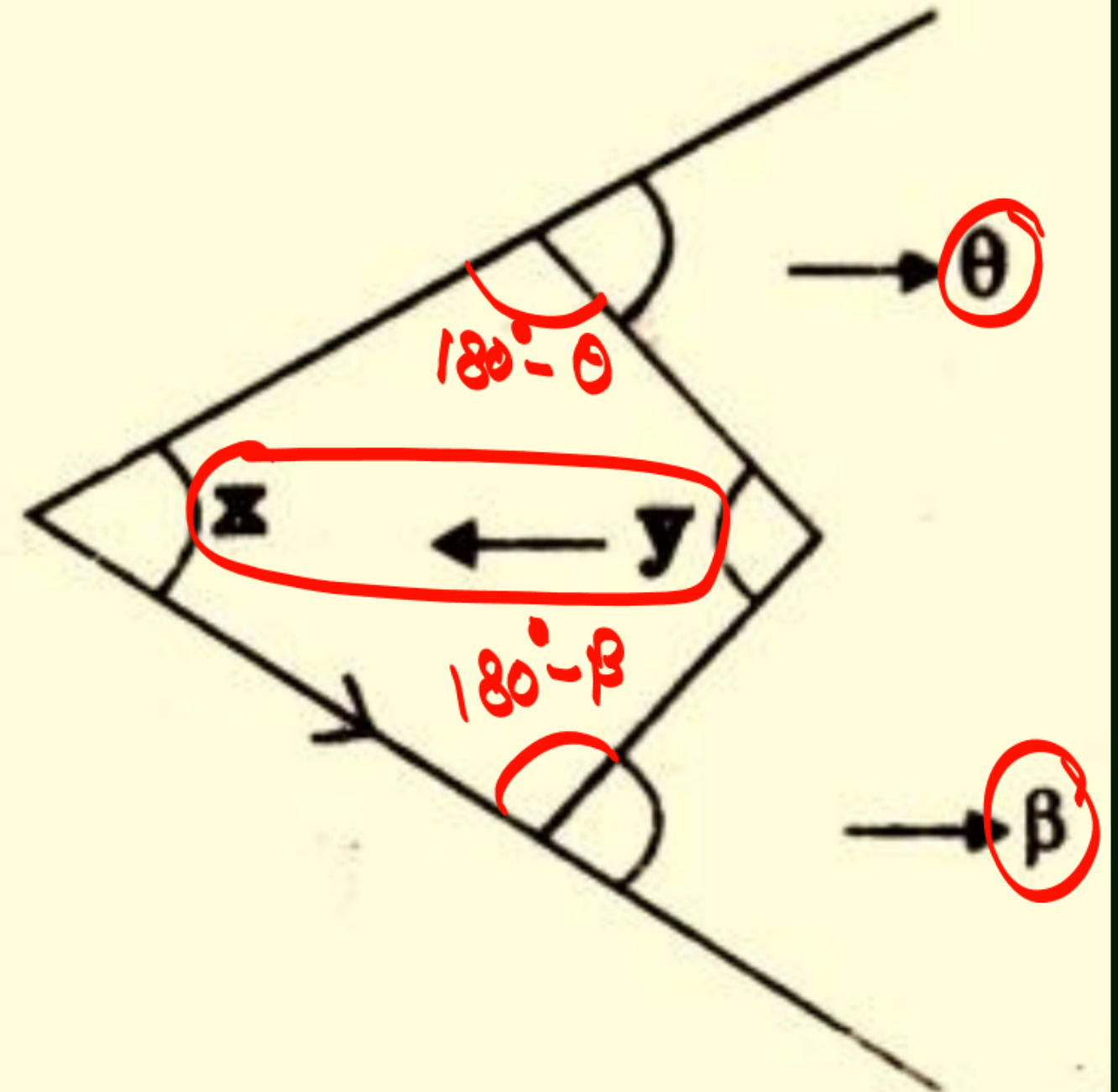
$$x = \underline{90^\circ}$$

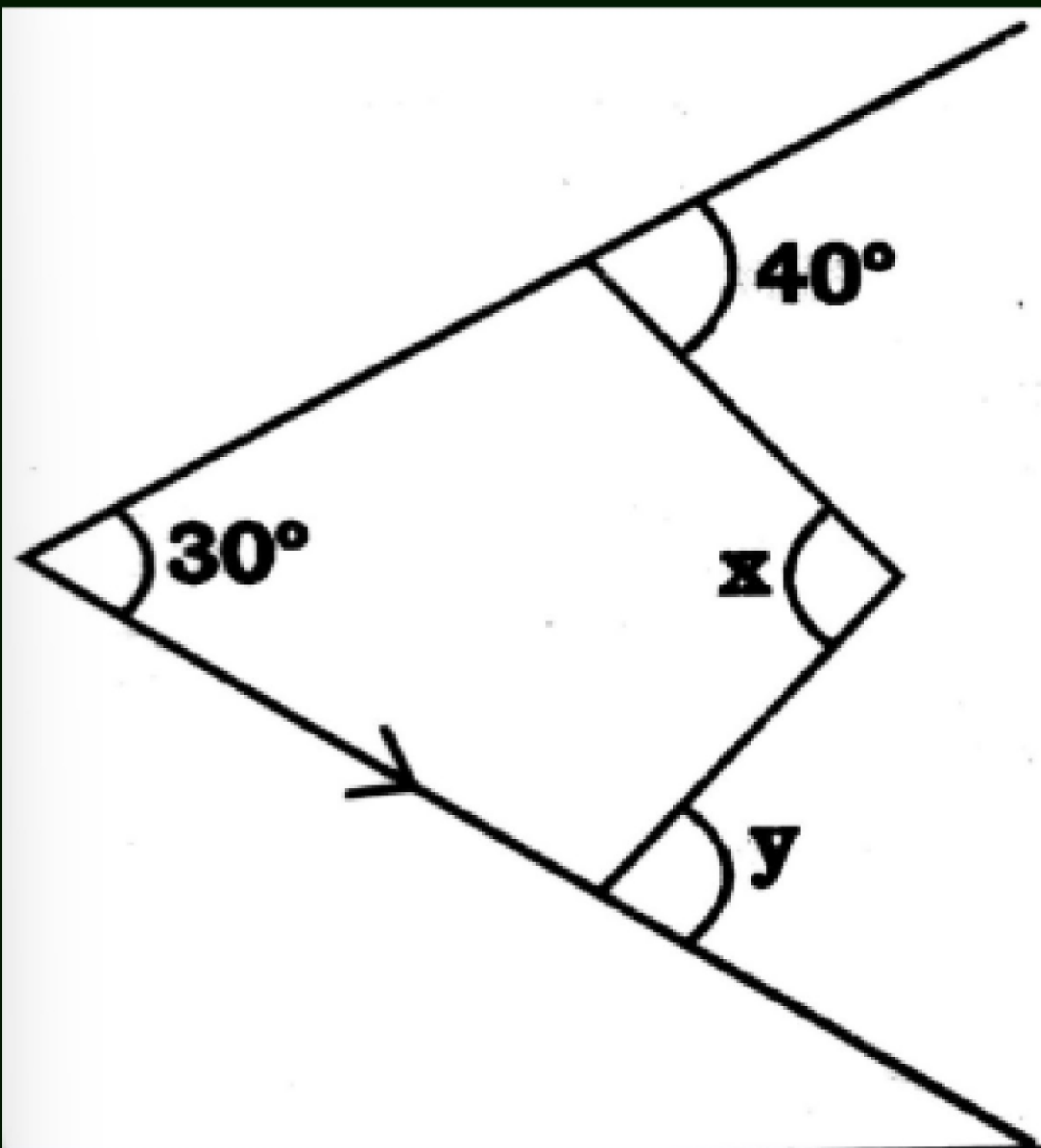


$$180^\circ - \theta + x + y + 180^\circ - \beta = 360^\circ$$

$$x + y = \theta + \beta$$

$$x + y = \theta + \beta$$





12. Find the value of in the following $x - y$ figure.

निम्नलिखित चित्र में $x - y$ का मान ज्ञात कीजिए।

☒ (a) 10°

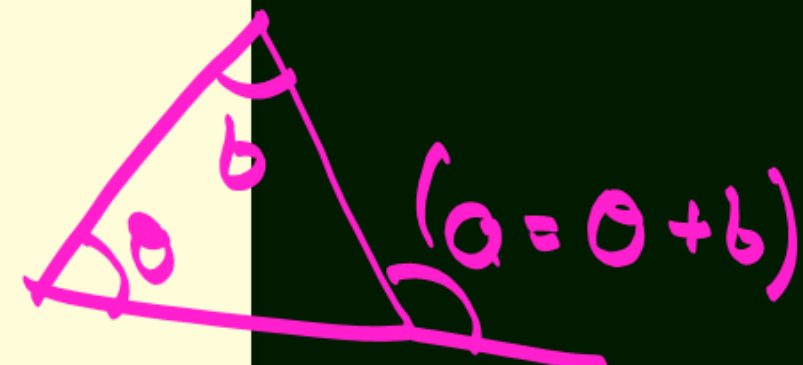
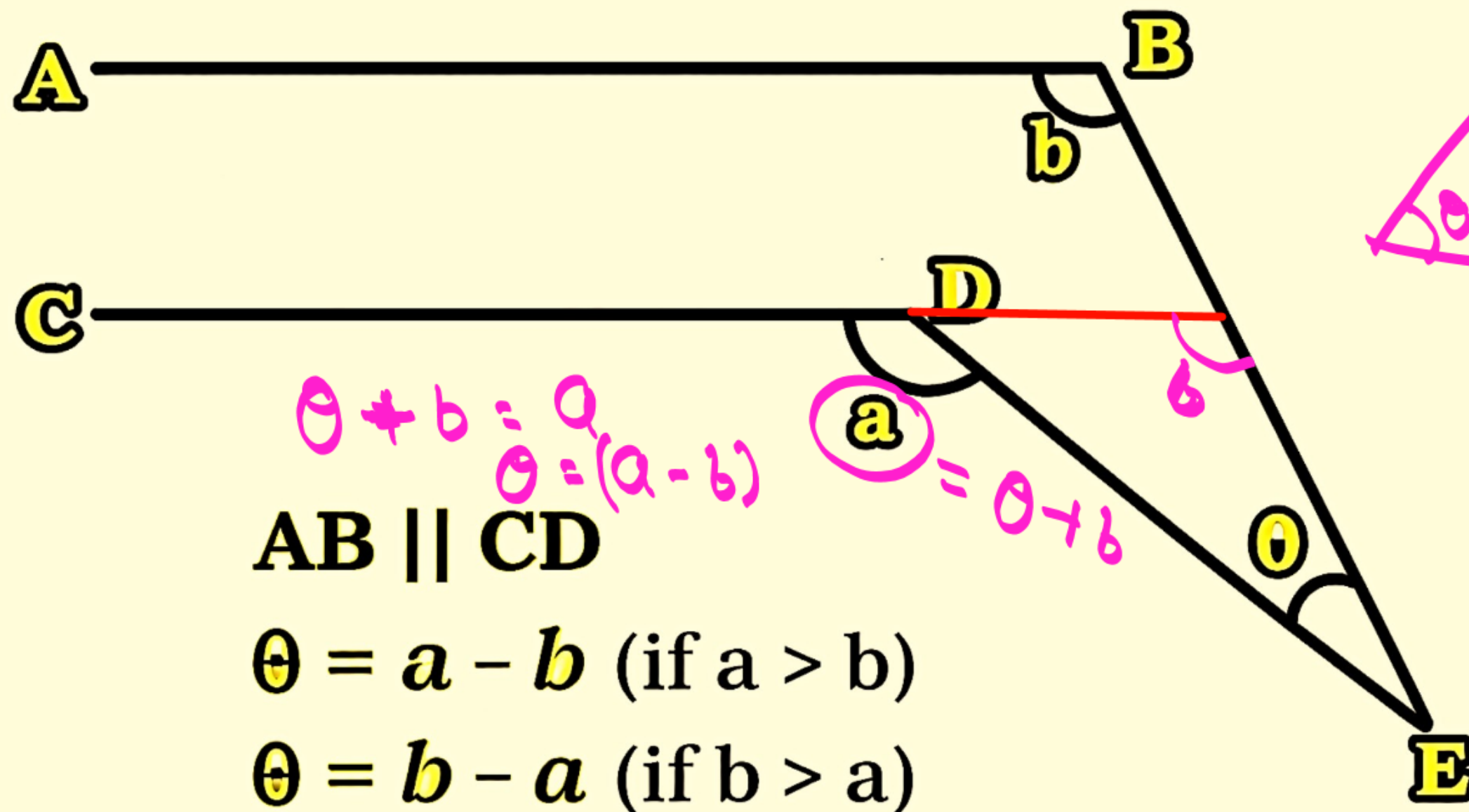
(b) 20°

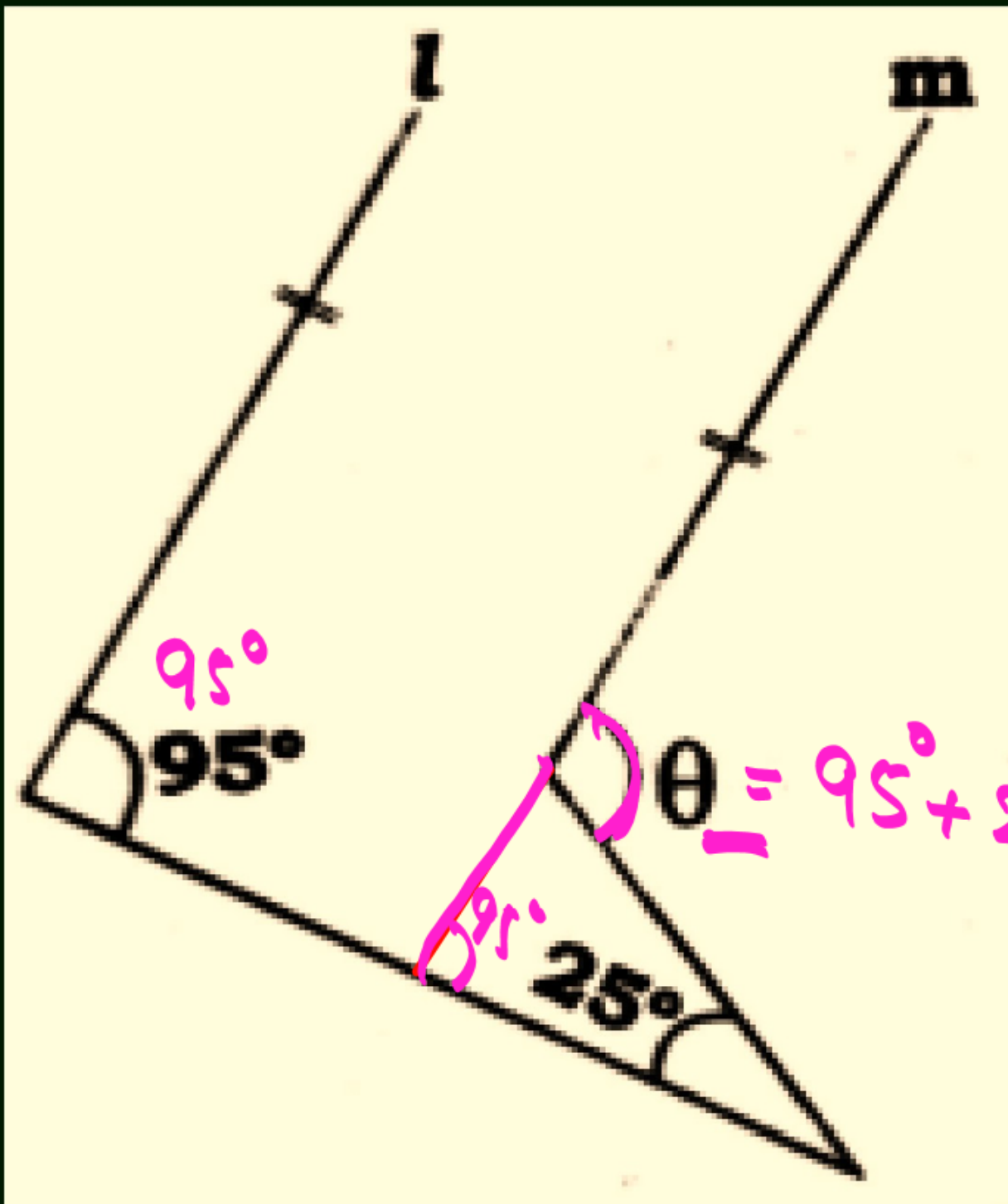
(c) 30°

(d) 40°

$$x + 30^\circ = y + 40^\circ$$

$$x - y = 40^\circ - 30^\circ = 10^\circ$$





13. If $l \parallel m$, then find the value of θ ?

If $0 < 90^\circ$

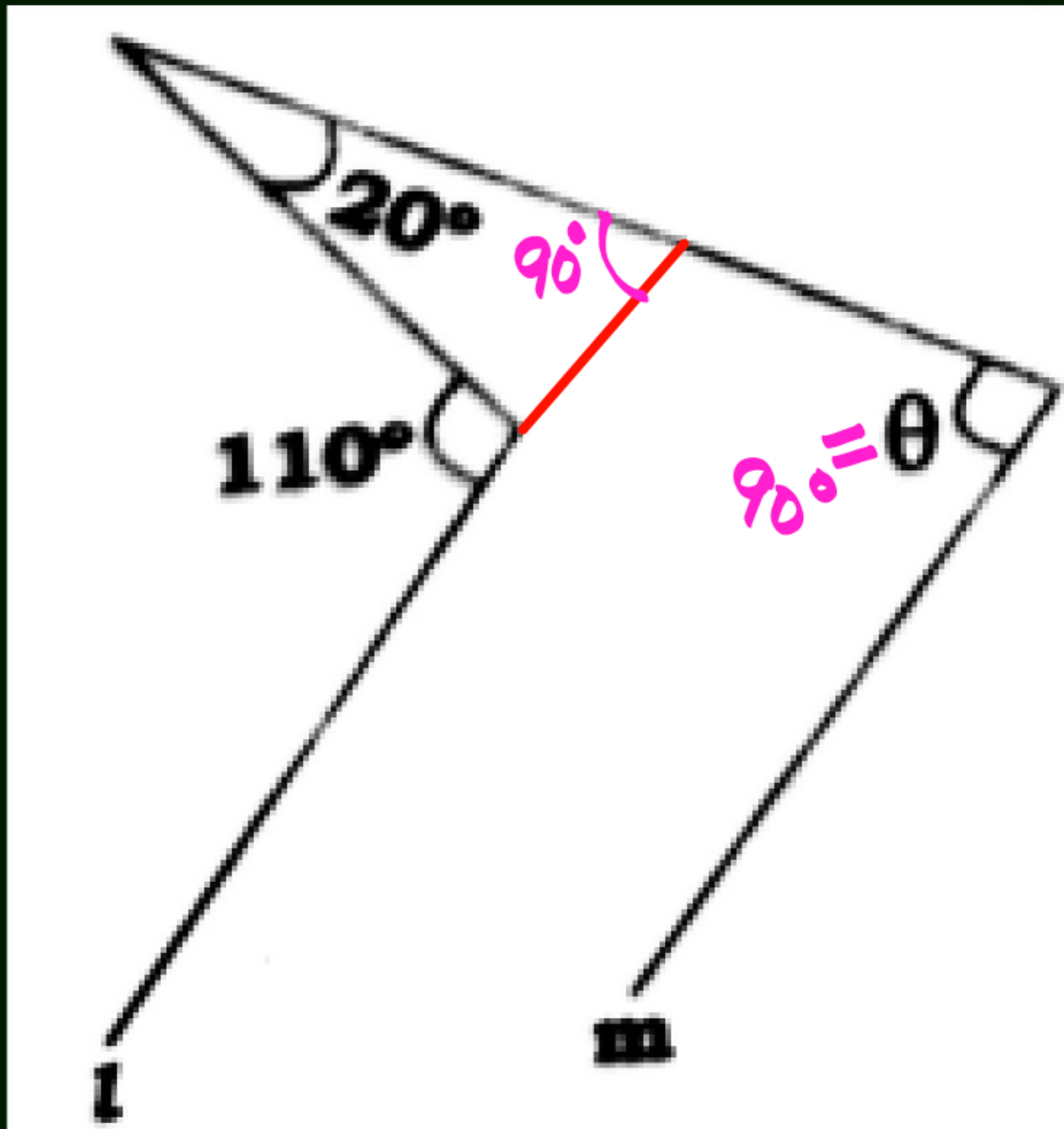
यदि $l \parallel m$ हैं, तो θ का मान बताओं?

(a) 70°

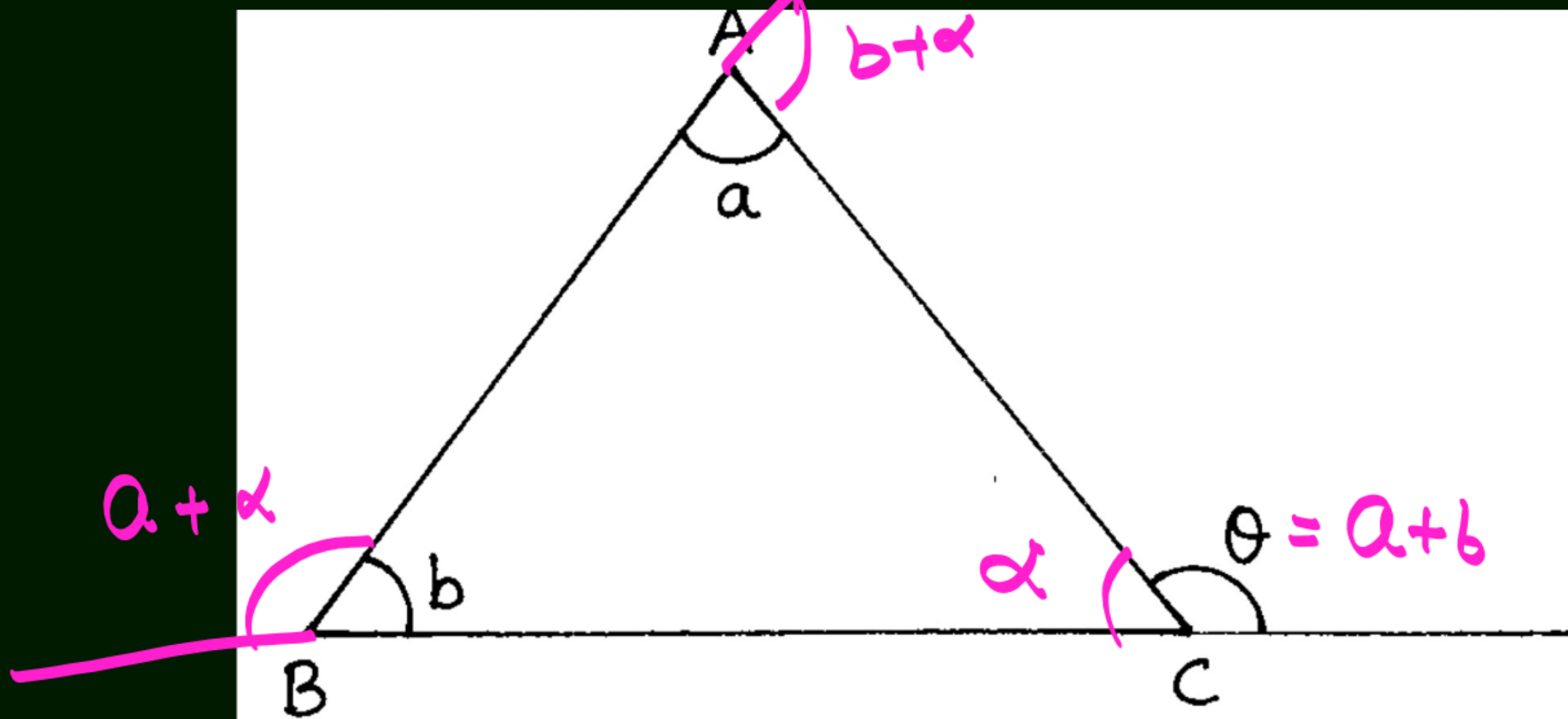
✓ (b) 120°

(c) 55°

(d) 85°

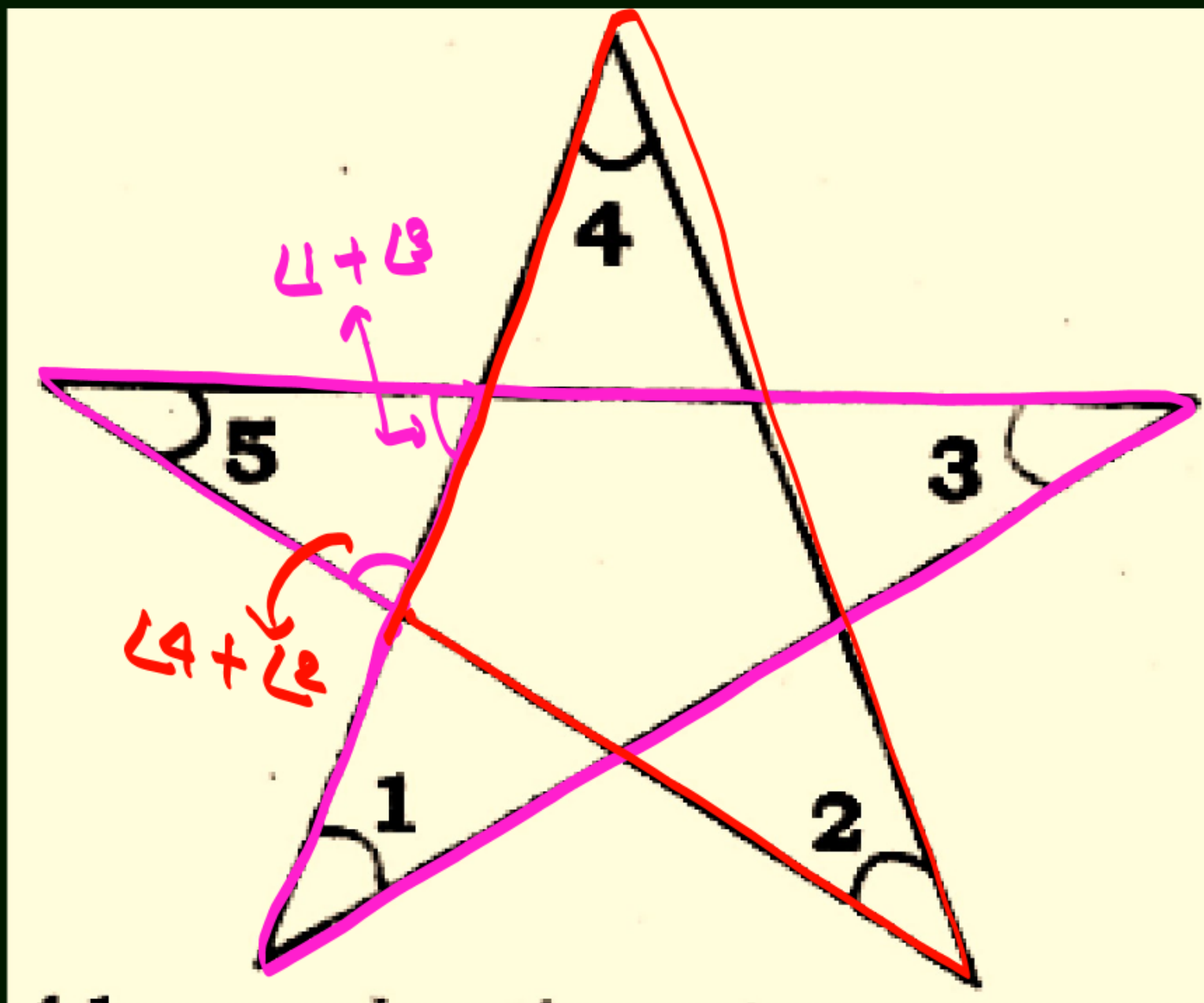


14. If $l \parallel m$, then find the value of θ ?
 यदि $l \parallel m$ हैं, तो θ का मान बताओं?
- (a) 130°
 - (b) 90°
 - (c) 70°
 - (d) 80°



gn $\triangle ABC$

$$\theta = a + b$$



15. In the given figure.

Find $\angle 1 + \angle 2 + \angle 3 + \angle 4 + \angle 5 = ?$

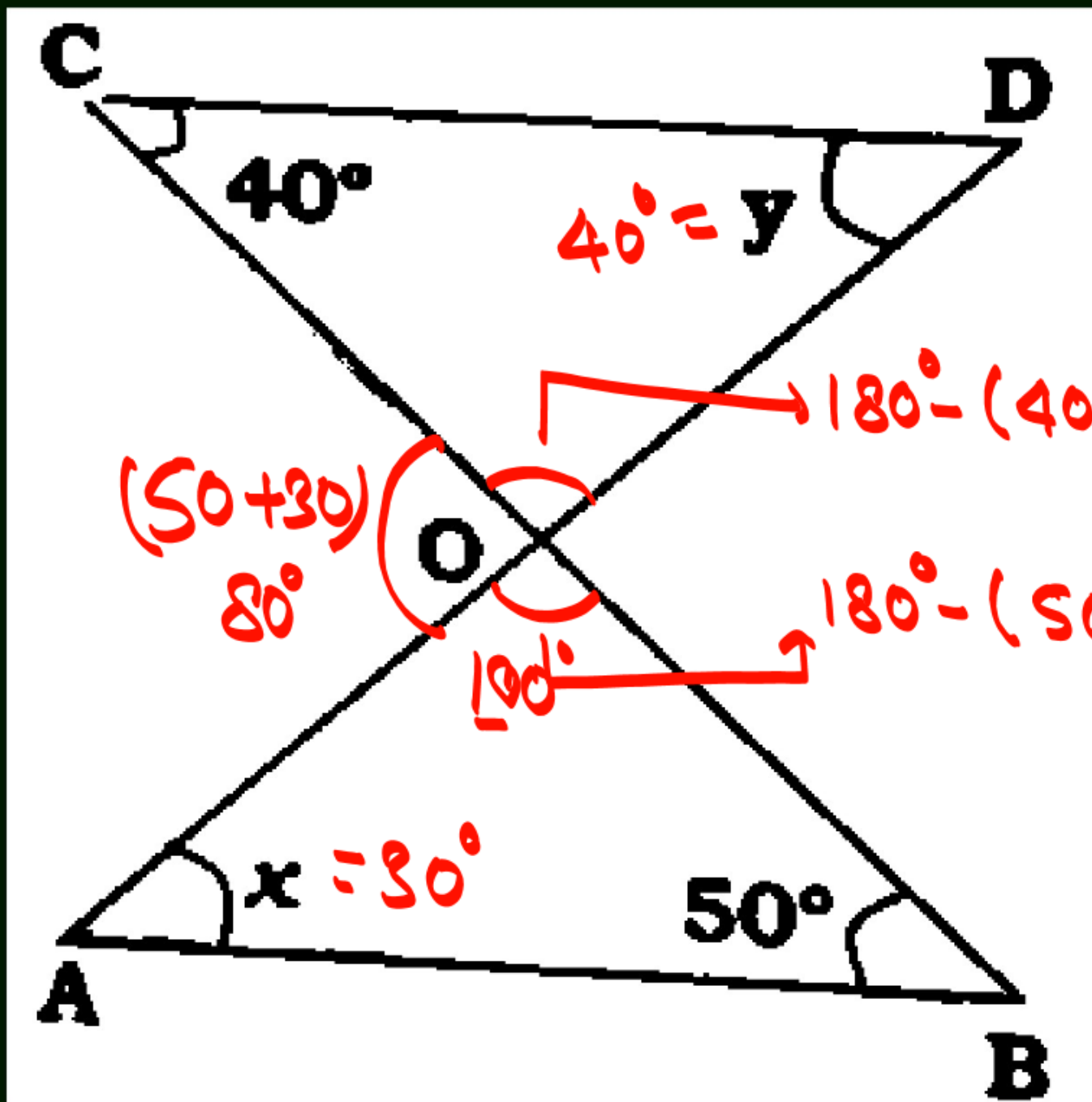
(a) 90°

(b) 120°

☒ (c) 180°

(d) 360°

$$\angle 1 + \angle 3 + \angle 2 + \angle 4 + \angle 5 = 180^\circ$$



16. In the following figure $\angle OCD = 40^\circ$ and $\angle OBA = 50^\circ$ If $x : y = 3 : 4$ then find the value of $\angle AOC : \angle AOB$?

निम्न आकृति में $\angle OCD = 40^\circ$ और $\angle OBA = 50^\circ$ यदि $x : y = 3 : 4$ तो $\angle AOC : \angle AOB$ का मान बताओ।

- (a) $\frac{4}{5}$
- (b) $\frac{5}{4}$
- (c) $\frac{3}{2}$
- (d) $\frac{2}{3}$

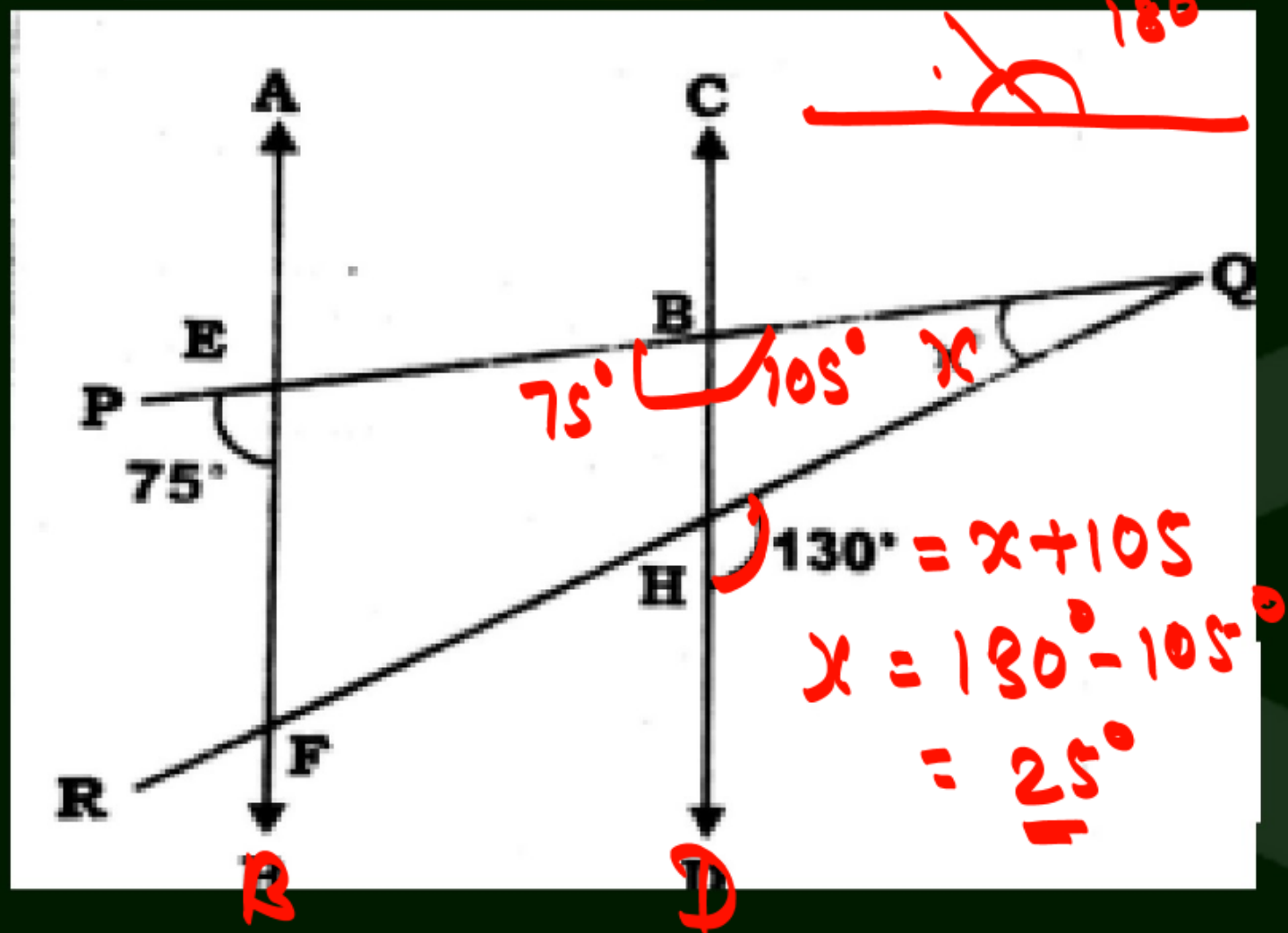
$$\frac{80}{100} = \frac{4}{5}$$

$$140 - y = 130 - x$$

$$10 = y - x$$

$$40 = 4K - 3K = 10$$

$$K = 10$$



17. In the adjoining figure $AB \parallel CD$ and PQ, QR intersects AB and CD both at G, H. Given that $\angle PEB = 75^\circ$, $\angle QHD = 130^\circ$ and $\angle PQR = x^\circ$. Find x :

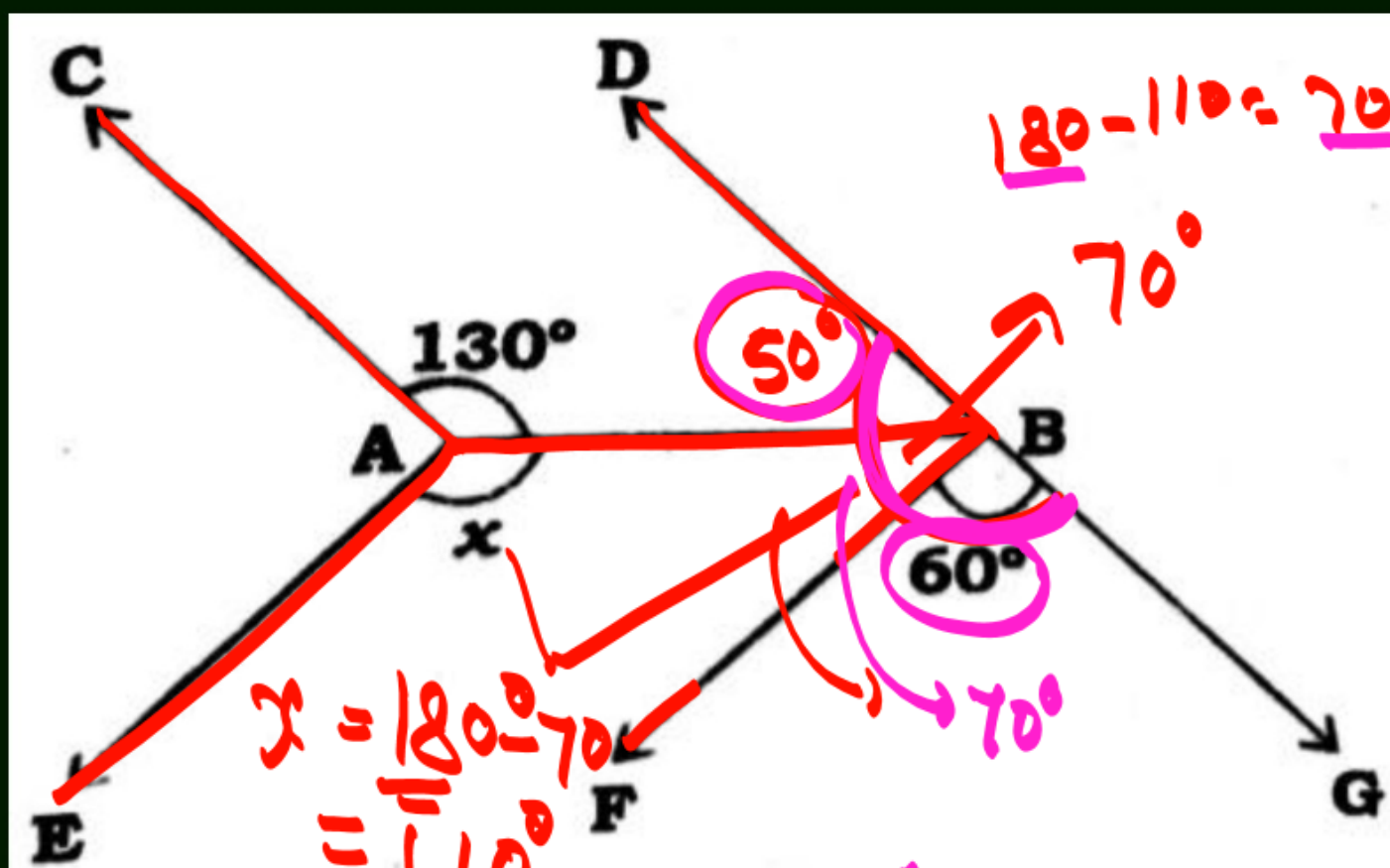
दिए गए चित्र में, $AB \parallel CD$ तथा PQ, QR क्रमशः AB तथा CD को बिंदु E, F तथा G, H पर काटती है। दिया गया है कि $\angle PEB = 75^\circ$, $\angle QHD = 130^\circ$ और $\angle PQR = x^\circ$ तो x का मान ज्ञात करो?

(a) 75°

(b) 50°

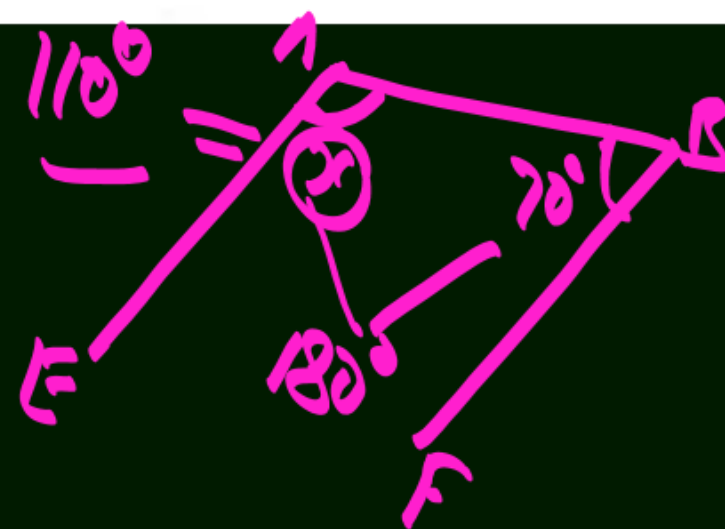
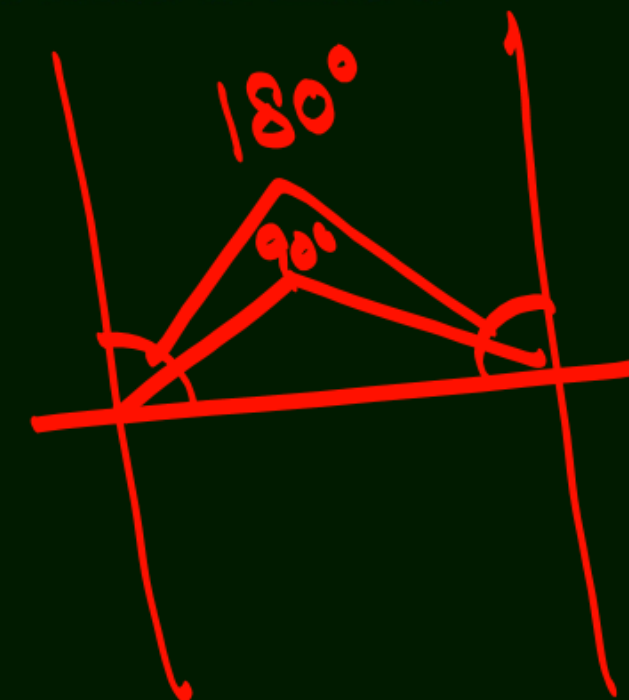
☒ (c) 25°

(d) 15°

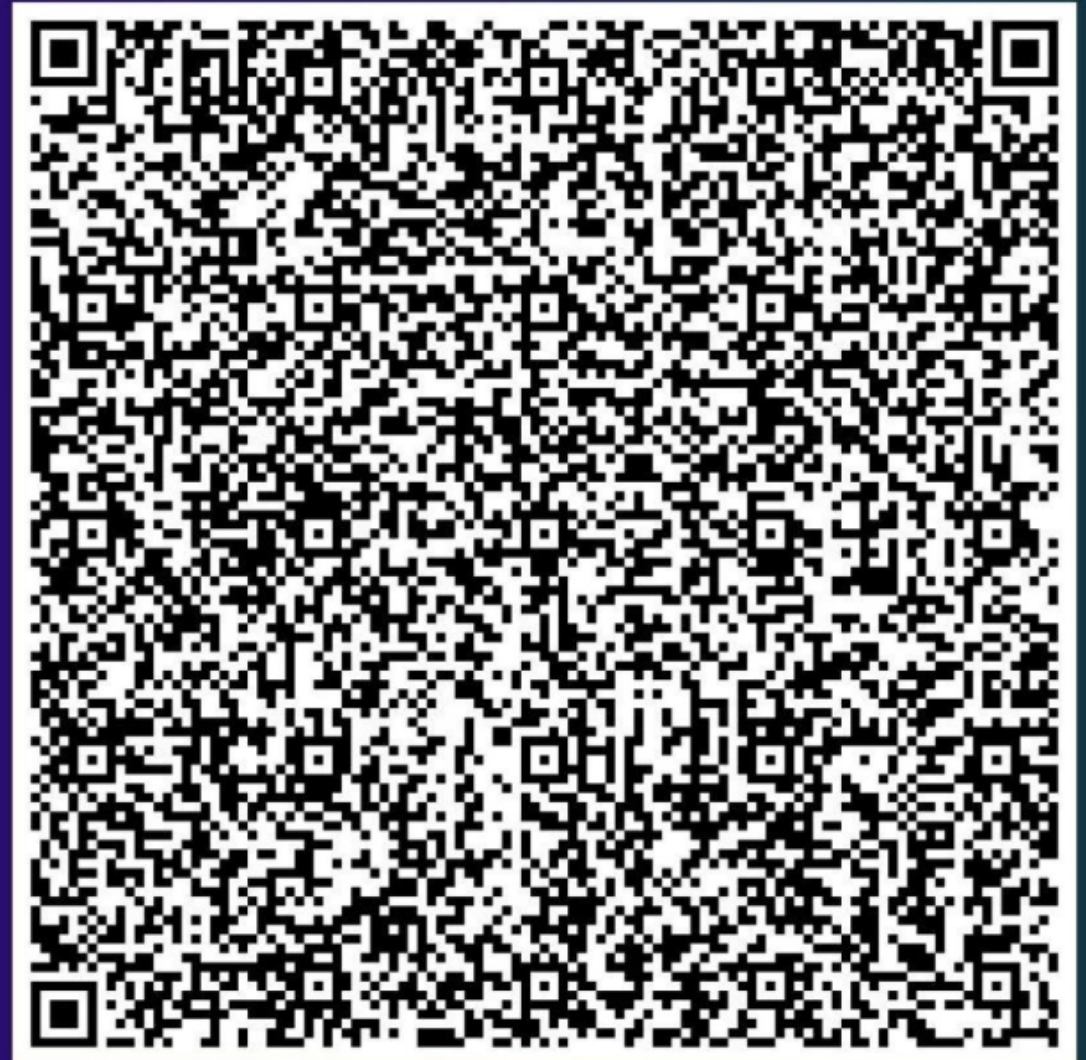


18. In the figure given below, $AC \parallel BD$ and $AE \parallel BF$, What is Zx ?

- (a) 130°
- ☒ (b) 110°
- (c) 70°
- (d) 50°



MATHS BY SHASHI SINGH RATHORE



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