Geometry - Online Quiz

Following quiz provides Multiple Choice Questions (MCQs) related to **Geometry**. You will have to read all the given answers and click over the correct answer. If you are not sure about the answer then you can check the answer using **Show Answer** button. You can use **Next Quiz** button to check new set of questions in the quiz.

Q 1 - The sum of all angles around a point is

A - 0º

B - 90º

C - 180º

D - 360º

Answer : D

Explanation

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The sum of all angle around a point is 360º .
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Hide Answer

Q 2 - Two angles are complementary, if the sum of their measures is

A - 90º

B - 100º

C - 180º

D - 360º

Answer : A

Explanation

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Two angle are complementary, if the sum of their measures is 90º.
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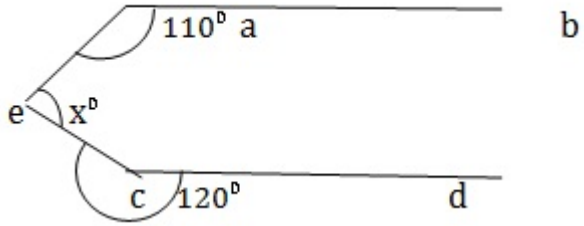
Hide Answer

Q 3 - In the given figure , AB || CD, ∠BAE =110º , ∠ECD = 120º and ∠AEC =xº. Then, x= ?



A - 130º

B - 65º

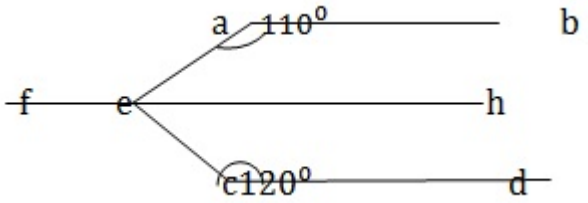
C - 75º

D - 110º

Answer : A

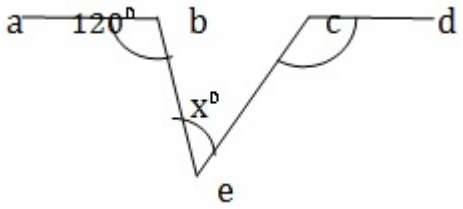
Explanation

Draw FEG‖ AB ‖CD.
AB‖ EG and AE is the transversal.
∴ ∠BAE +∠AEG = 180º
⇒ 110º + ∠AEG =180º ⇒ ∠AEG =70º
Again, EG‖ CD and EC is transcersal.
∴ ∠GEC + ∠ ECD = 180º ⇒ ∠GEC +120º =180º ⇒ ∠GEC= 60º
∴ X= 70+60 =130



Hide Answer

Q 4 - In the given figure , AB ll CD, ∠ABE =120°, ∠DCE = 100° and ∠BEC =x°. Then, x= ?



A - 60°

B - 50°

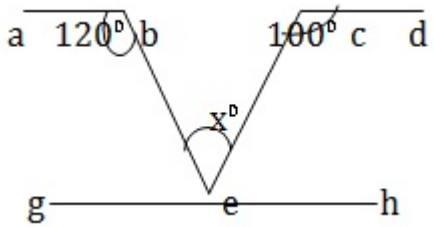
C - 40°

D - 70°

Answer : C

Explanation

Through E draw GEH ‖ AB ‖CD
AB‖ EG and BE is the transversal.
∠ ABE +∠ GEB = 180º ⇒ 120º +∠GEB =180º ⇒ ∠GEB = 60º
CD ‖EH and CE is the transversal.
∴∠DCE +∠CEH = 180º ⇒ 100º + ∠CEH =180º ⇒ CEH = 80º
NOW ∠GEB+ ∠BEC +∠CEH = 180º ⇒ 60+x+80 =180 ⇒ x = 40



Hide Answer

Q 5 - In A ∆ABC ,∠A-∠B=33º and∠ B -∠C = 18º . Then∠ B =?

A - 35º

B - 55º

C - 45º

D - 57 º

Answer : B

Explanation

∠ A- ∠B = 33º and ∠B -∠C =18º
⇒ A= 33+ B and C=B -18
= (33+B) + B + (B-18) =180
⇒ 3B =165 ⇒ B 55.
∴ ∠B =55º.

Hide Answer

Q 6 - A ladder is placed in such a way that its foot is 15m away from a wall and its top reaches a window 20m above the ground. The length of the ladder is:

A - 35m

B - 17.5m

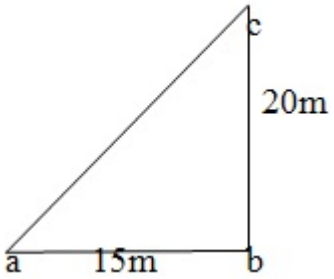
C - 25 m

D - 18 m

Answer : C

Explanation

Let BC be the wall and AB be the ladder.
Then , BC = 20 m and AC =15m
∴ AB^2= BC^2 +AC^2 = $(20)^2$ + $(15)^2$ = (400 + 225) = 625
⇒ AB = √625 = 25m.



Hide Answer

Q 7 - The radius of a circle is 13cm and AB is a chord which is at a distance of 12cm from the center. The length of the ladder is:

A - 35 cm

B - 17.5 cm

C - 25 cm

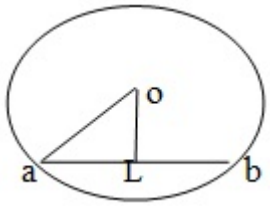
D - 10 cm

Answer : D

Explanation

Let O be the center of the circle and AB be the chord . Form O, draw OL ⊥ AB. join OA.
Then, oA = 13 cm and OL = 12cm.
∴ $AL^2 = OA^2 - OL^2 = (13)^2 - (12)^2 = (169-144) = 25$.

=.> AL= √25 =5 cm
⇒ AB = 2 * AL =(2*5) cm = 10 cm.



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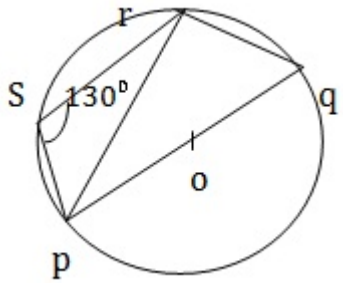
Q 8 - In the given figure , POQ is a diameter and PQRS is a cyclic quadrilateral. If ∠PSR =130º, Then ∠ RPQ =?



A - 40º

B - 50º

C - 60º

D - 70º

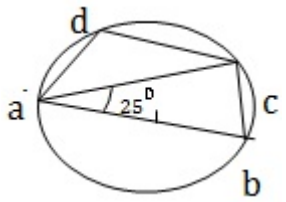
Answer : A

Explanation

PQRS is a cyclic quadrilateral.
∠PSR + ∠PQR = 180º ⇒ 130º + ∠PQR =180º⇒∠ PQR=50º.
Also PRQ = 90º (angle in a semi- circle)
In PQR we have
∠PQR + ∠PRQ + ∠RPQ = 180º⇒ 50º +90º+∠RPQ =180º ⇒ ∠RPQ = 40º.

Hide Answer

Q 9 - In the given figure, AOB is a diameter of the circle and CD || AB. If ∠DAB = 25º ,Then ∠CAD=?



A - 45º

B - 40º

C - 65º

D - 115º

Answer : B

Explanation

AB DC and AC is a transversal.
∴ ∠ACD = ∠CAB = 25º (alt. s)
∠ACB = 90º (angle in a semicircle)
∴ ∠BCD =∠ACB + ∠ ACD=(90º +25º)= 115º.
∠BAD + ∠BCD = 180º ⇒ ∠BAC +∠CAD +∠BCD = 180º
⇒ 25º +∠ CAD + 115º =180º ⇒ ∠CAD = 40º

Show Answer

Q 10 - The lengths of the diagonals of a rhombus are 24cm and 18cm respectively. The length of each side of the rhombus is

A - 12 cm

B - 9 cm

C - 15 cm

D - 8 cm

Answer : C

Explanation

Let ABCD be a rhombus in which diagonal AC=24 cm and diagonal BD =18 cm . We know that the diagonal of a rh

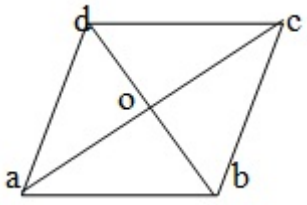
∴ OA = 1/2 AC =(1/2 *24) cm =12cm

OB = 1/2 BD = (1/2 *18) cm =9cm

$AB^2 = OA^2 + OB^2 = (12)^2 + 9^2 = (144 + 81) = 225$

⇒ AB = √225 = 15 cm.

∴ Each side of the rhombus is 15 cm.



Hide Answer