

Geometry - Solved Examples

Q 1 - A line has

A - One end point

B - Two end points

C - Three end points

D - No end points

Answer - D

Explanation

A line has no points.

Q 2 - A line segment has

A - One end point

B - Two end points

C - Three end points

D - No end points

Answer - B

Explanation

A line segment has two end points.

Q 3 - A ray has

A - One end point

B - Two end points

C - Three end points

D - No end points

Answer - A**Explanation**

A ray has one end point.

Q 4 - An angle which is greater than 180° but less than 360° is called

A - Acute Angle

B - Obtuse Angle

C - Straight Angle

D - Reflex Angle

Answer - B**Explanation**

An angle which is greater than 180° but less than 360° is called a reflex angle.

Q 5 - The complement of 62° is.

A - 118°

B - 28°

C - 38°

D - 48°

Answer - B

Explanation

Complement of $62^\circ = (90^\circ - 62^\circ) = 28^\circ$.

Q 6 - The supplement of 60° is

A - 30°

B - 40°

C - 120°

D - 300°

Answer - B

Explanation

Supplement of $60^\circ = (180^\circ - 60^\circ) = 120^\circ$.

Q 7 - The complement of $72^\circ 40'$ is

A - $107^\circ 20'$

B - $27^\circ 20'$

C - $17^\circ 20'$

D - $12^\circ 40'$

Answer - C

Explanation

Complement of $72^\circ 40' = (90^\circ - 72^\circ 40') = 17^\circ 20'$.

Q 8 - An angle is one fifth of its supplement. The measure of the angle is

A - 15°

B - 30°

C - 75°

D - 150°

Answer - B

Explanation

$x = \frac{1}{5} (180 - x) \Rightarrow 5x = 180 - x \Rightarrow 6x = 180 \Rightarrow x = 30^\circ$.

Q 9 - If an angle is its own complementary angle, then its measure is

A - 30°

B - 45°

C - 60°

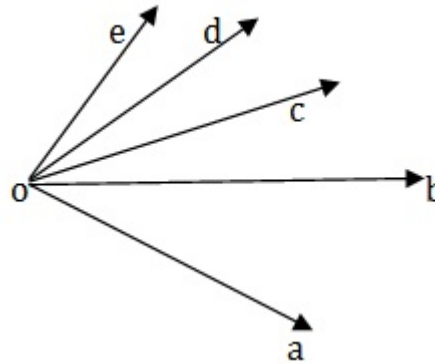
D - 90°

Answer - B

Explanation

$$x = (90 - x) \Rightarrow 2x = 90 \Rightarrow x = 45^\circ .$$

Q 10 - How many angles are made by rays shown in the figure?



A - 5

B - 6

C - 8

D - 10

Answer - D**Explanation**

The angle are $\angle AOB$, $\angle BOC$, $\angle COD$, $\angle DOE$, $\angle AOC$, $\angle AOD$, $\angle AOE$, $\angle BOD$, $\angle BOD$, $\angle COE$.
Thus , 10 angle are formed.

Q 11 - An angle is 24° more than its complement. The measure of the angle is

A - 57°

B - 47°

C - 53°

D - 66°

Answer - A**Explanation**

$x - (90 - x) = 24 \Rightarrow 2x = 114 \Rightarrow x = 57$
 \therefore Required angle is 57° .

Q 12 -An angle is 32° less than its supplement. The measure of the angle is

A - 37°

B - 74°

C - 48°

D - 66°

Answer - A

Explanation

$(180 - X) - X = 32 \Rightarrow 2x = 180 - 32 = 148 \Rightarrow x = 74$.
Required angle is 74° .

Q 13 - Two Supplementary angles are in th ratio 3:2. The smaller angle measures

A - 108°

B - 81°

C - 72°

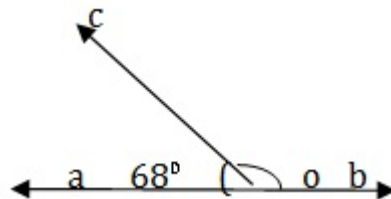
D - 66°

Answer - C

Explanation

Let the measures of the angle be $(3x)^\circ$ and $(2x)^\circ$. Then,
 $3x + 2x = 180 \Rightarrow 5x = 180 \Rightarrow x = 36$.
Smaller angle = $(2x)^\circ = (2 \times 36)^\circ = 72^\circ$.

Q 14 - In the given figure, AOB is a straight line, $\angle AOC = 68^\circ$ and $\angle BOC = x^\circ$. The value of the x is



A - 120°

B - 22°

C - 112°

D - 132°

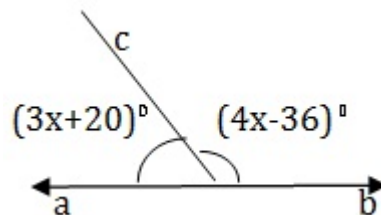
Answer - A

Explanation

Since $\angle AOB$ is a straight angle , we have

$$x + 68 = 180 \Rightarrow x = (180 - 68)^\circ = 112^\circ$$

Q 15 - In the given figure , AOB is a straight line, $\angle AOC = (3x+20)^\circ$ and $\angle BOC = (4x-36)^\circ$. The value of the x is



A - 32°

B - 22°

C - 26°

D - 24°

Answer - B

Explanation

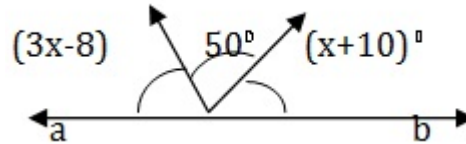
Since $\angle AOB$ is a straight angle , we have

$$\angle AOC + \angle BOC = 180^\circ$$

$$\Rightarrow 3x + 20 + 4x - 36 = 180$$

$$\Rightarrow 7x = 164 \Rightarrow x = 22.$$

Q 16 - In the given figure , AOB is a straight line, $\angle AOC = (3x-8)^\circ$ and $\angle COD = 50^\circ$ and $\angle BOD = (x+10)^\circ$. The value of the x is



A - 32°

B - 42°

C - 36°

D - 52°

Answer - A

Explanation

Since $\angle AOB$ is a straight angle , we have

$$\angle AOC + \angle COB + \angle BOD = 180^\circ$$

$$\Rightarrow (3x - 8)^\circ + 50^\circ + (x + 10)^\circ = 180^\circ$$

$$\Rightarrow 4x = 128 \Rightarrow x = 32.$$