cracku

SSC GD Quant Previous Papers PDF

Instructions

For the following questions answer them individually

Question 1

A 270 meters long train running at the speed of 120 kmph crosses another train running in opposite direction at the speed of 80 kmph in 9 seconds. What is the length of the other train ?

A 240 meters

B 320 meters

C 260 meters

D 230 meters

Answer: D

Explanation:

Relative speed = (120 + 80) kmph (or) 200 kmph, Relative time = 9 seconds, Relative distance = (270 + x) meters

Let x be the length of other train.

We know that,

Distance = speed x time

270 + x = 200 x $\frac{5}{18}$ x 9

270 + x = 100 x 5

x = 500 - 270 (or) 230 meters.

Hence, option D is the correct answer.

Question 2

Raviraj invested an amount of Rs.10,000 at compound interest rate of 10 p.e.p.a. For a period of three years. How much amount will Raviraj et after three years ?

A Rs.13,210

B Rs.13,310

C Rs.12,100

D Rs.11,000

Answer: B

Explanation:
Principal sum = Rs. 10,000

Rate of interest = 10% and time period = 3 years

Amount after compound interest = $P(1 + \frac{r}{100})^T$

= $10,000(1 + \frac{10}{100})^3$

= $10,000 \times (\frac{11}{10})^3$

= $10 \times 1331 = Rs.\,13,310$

=> Ans - (A)

Question 3

Twice the square of a number is the cube of 18. The number is

A   54

B   108

C   162

D   324

   Answer: A

Explanation:
Let the number be x

According to ques,

=> $2 \times (x)^2 = (18)^3$

=> $(x)^2 = (18)^2 \times \frac{18}{2}$

=> $x = \sqrt{(18)^2 \times 9}$

=> $x = 18 \times 3 = 54$

=> Ans - (A)

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Question 4

The average salary of a group of 27 is Rs. 3,700. If the salary of one more person is added, the average is increased to Rs.3750. What is the salary of the new person ?

A   Rs.5010

B   Rs.5200

C   Rs.5100

D   Rs.5000

   Answer: C

Explanation:

Average salary of 27 people = Rs. 3700

=> Total salary of 27 people = $3700 \times 27 = Rs.\, 99,900$

Let the salary of new person = Rs. x

According to ques,

=> $\frac{99,900+x}{28} = 3750$

=> $99,900 + x = 3750 \times 28$

=> $x = 1,05,000 - 99,900 = 5100$

∴ Salary of the new person = **Rs. 5100**

=> Ans - (C)

Question 5

What should come in place of both the question marks (?) in the following equation.

$\frac{16}{?} = \frac{?}{42.25}$

A   2.6

B   260

C   .26

D   26

   Answer: D

Explanation:

$\frac{16}{x} = \frac{x}{42.25}$

==> $x^2 = \frac{16 \times 4225}{100}$

==> $x = \frac{4 \times 65}{10}$

∴ $x = 26$

Question 6

An amount of money is to be distributed among P, Q and R in the ratio of 5:9:17 respectively. If the total of the shares of P and Q is Rs.7,000. What is R's share in it

A   Rs.4,500

B   Rs.2,500

C   Rs.8,500

D Rs.6,000

Answer: C

Explanation:
Let the amount distributed among P, Q and R be 5x, 9x and 17x respectively

Total shares of P and Q is 7,000 (given) i.e

$\Rightarrow$ 5x + 9x = 7,000

$\Rightarrow$ 14x = 7,000 (or) x = 500

$\therefore$ R's share = 17(500) = 8,500

Hence, option C is the correct answer.

SSC GD Previous Question papers (download pdf)

Question 7

One-fourth of three-fifth of a number is 42. What is 40% of that number ?

A 140

B 116

C 128

D 112

Answer: D

Explanation:
Let the number be x

According to ques,

=> $\frac{1}{4} \times \frac{3}{5} \times (x) = 42$

=> $x = 42 \times \frac{20}{3}$

=> $x = 280$

$\therefore$ 40% of the number = $\frac{40}{100} \times 280 = 112$

=> Ans - (D)

Question 8

By how much is 10% of 24.2 more than 10% of 24.02 ?

A 1.8

B 0.018

C 0.18

D 18

Answer: B

Explanation:
To find : 10% of $24.2 - 10\%$ of 24.02

=> $\left(\frac{10}{100} \times 24.2\right) - \left(\frac{10}{100} \times 24.02\right)$

=> $2.42 - 2.402 = 0.018$

=> Ans - (B)

Question 9

Ramesh bought a calculator with 20% discount on the tag price. He obtained 10% profit by selling it for Rs.440. What was the tag price ?

A Rs.500

B Rs.400

C Rs.480

D Rs.360

Answer: A

Explanation:
Let tag price = Rs. $100x$

Discount % = 20%

=> Calculator's selling price = Cost price for Ramesh = $100x - \left(\frac{20}{100} \times 100x\right)$

= $100x - 20x = Rs. 80x$

Profit = $\frac{10}{100} \times 80x = Rs. 8x$

Also, selling price = $(80x + 8x) = 440$

=> $x = \frac{440}{88} = 5$

∴ Tag price = $100 \times 5 = Rs. 500$

=> Ans - (A)

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Question 10

The sum of two numbers is 22 and their difference is 14. Find the product of numbers.

A 72

B 82

C 62

D 27

Answer: A

Explanation:

Let, the two numbers be x and y

Given, sum of two numbers (x + y) = 22 .... (1)

Difference of two numbers (x - y) = 14 .... (2)

By adding the above two equations we get,

2x = 36 (or) x = 18

By subtracting the above two equations we get,

2y = 8 (or) y = 4

Product of two numbers (x × y) = 18 x 4 = 72

Hence, option A is the correct answer.

Question 11

If m = 9 and n = $\frac{1}{3}$ m, then $\sqrt{(m)^2 - (n)^2} =?$

A $2\sqrt{2}$

B $6\sqrt{2}$

C $4\sqrt{2}$

D $5\sqrt{2}$

Answer: B

Explanation:

Given : $m = 9$ and $n = \frac{1}{3}m$

=> $n = \frac{1}{3} \times 9 = 3$

To find : $\sqrt{(m)^2 - (n)^2}$

= $\sqrt{(9)^2 - (3)^2}$

= $\sqrt{81 - 9} = \sqrt{72} = 6\sqrt{2}$

=> Ans - (B)

Question 12

The ratio between the ages of x and y at present is 3:4. Five years hence, the ratio of their ages will be 4:5; what is the present age of y in years ?

A 15

B 20

C 25

D 30

   Answer: B

Explanation:

Let the present ages of x and y be 3a,4a respectively

After 5 years, their ages will be 3a+5 and 4a+5

$\frac{3a+5}{4a+5} = \frac{4}{5}$

==> 5(3a+5) = 4(4a+5)

==> 15a+25 = 16a+20

==> a=5

Present age of x = 3*5=15 years

Present age of y = 4*5=20 years

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Question 13

What would come in place of ($) mark in the following equation ?
* 2 $ 20 ÷ 156 = 145

A 6

B 2

C 4

D 0

   Answer: A

Question 14

$2\frac{1}{5}x^2$ **= 2750, find the value of x ?**

A 25

B $25\sqrt{3}$

C $25\sqrt{2}$

D 20

   Answer: C

Explanation:
$2\frac{1}{5}x^2 = 2750$

==> $\frac{11}{5}x^2 = 2750$

==> $x^2 = \frac{2750 \times 5}{11}$

==> $x^2 = 1250$

==> $x = \sqrt{1250} = \sqrt{625 \times 2}$

==> $x = 25\sqrt{2}$

Question 15

$\frac{75 \times 75 - 26 \times 26}{101} = ?$

A 59

B 39

C 29

D 49

   Answer: D

Explanation:
$\frac{75 \times 75 - 26 \times 26}{101} = \frac{75^2 - 26^2}{101}$

==> $\frac{(75+26)(75-26)}{101}$ $(\because a^2 - b^2 = (a+b)(a-b))$

= $\frac{101 \times 49}{101} = 49$

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Question 16

$\angle ABC$ **is an isosceles triangle and** $\overline{AB} = \overline{AC}$ **= 2a unit** $\overline{BC}$ **= a unit, Draw** $\overline{AD} \perp \overline{BC}$, **and find the length of** $\overline{AD}$

A $\sqrt{15}$ a unit

B $\frac{\sqrt{15}}{2}$ a unit

C $\sqrt{17}$ a unit

D $\frac{\sqrt{17}}{2}$ a unit

Answer: B

Explanation:

Given that AB=BC=2a units and BC=a units

AD⊥BC ⟹ 'D' is midpoint of BC

BD=DC=$\frac{a}{2}$

Here \triangle ABD is a right angled triangle where AB is hypotenuse

$AB^2 = BD^2 + AD^2$
$\Rightarrow AD^2 = AB^2 - BD^2$
$\Rightarrow AD = \sqrt{2a^2 - \frac{a}{2}}$
$\qquad = \sqrt{4a^2 - \frac{a^2}{4}}$
$\qquad = \sqrt{\frac{15a^2}{4}} = \frac{\sqrt{15}a}{2}$ units

Question 17

All sides of a quadrilateral ABCD touch a circle. If AB = 6 cm. BC = 7.5 cm. CD = 3 cm, then DA is

A 3.5 cm

B 4.5 cm

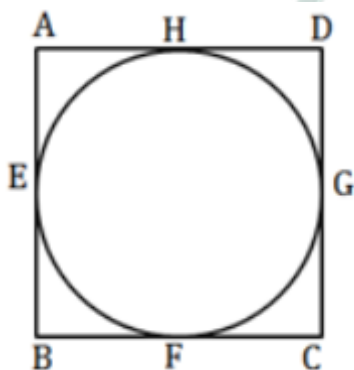**C** 2.5 cm

D 1.5 cm

Answer: D

Explanation:

Given : AB = 6 cm. BC = 7.5 cm. CD = 3 cm

To find : DA = ?

Solution : Tangents from the same point to a circle are equal in length.

=> $AE = AH, BE = BF, CG = CF$ and $DG = DH$

Adding above equations, we get :

=> $(AE + BE) + (CG + DG) = (BF + CF) + (AH + DH)$

=> $AB + CD = BC + DA$

=> $6 + 3 = 7.5 + DA$

=> $DA = 9 - 7.5 = 1.5$ cm

=> Ans - (D)

Question 18

In a right angled triangle, the product of two sides is equal to half of the square of the third side i.e., hypotenuse. One of the acute angles must be

A $60°$

B $30°$

C $45°$

D $15°$

Answer: C

Explanation:
Let the sides of the triangle ABC(right angled at B) be 'a','b','c' and c is hypotenuse

Given that $a \times b = \frac{c^2}{2} \Rightarrow c^2$ =2ab

We know that c^2 =$a^2 + b^2$

Substituting c^2 value in above equation

2ab= $a^2 + b^2$

$\Rightarrow a^2 - 2ab + b^2 = 0$

$\Rightarrow (a - b)^2 = 0$

$\Rightarrow a = b$

In a triangle, if two sides are equal then the opposite angles must be equal

We know that $\angle A + \angle B + \angle C = 180°$

Here $\angle A$=$\angle C$

$90° + 2\angle A$=$180°$

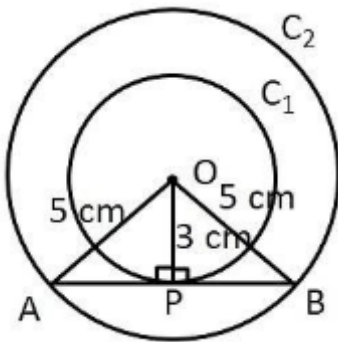$\therefore \angle A$=$\angle C$=$45°$

Question 19

If two concentric circles are of radii 5 cm and 3 cm, then the length of the chord of the larger circle which touches the smaller circle is

A 6 cm

B 7 cm

C 10 cm

D 8 cm

   Answer: D

Explanation:

Given : C_1 and C_2 be the two concentric circles having radius $r_1 = 3$ cm and $r_2 = 5$ cm respectively.

To find : AB = ?

Solution : AB is the the tangent to the circle C_1, hence $\angle$ OPB = 90°

Also, the perpendicular from the centre of a circle to a chord bisects the chord.

Thus, in $\triangle$ OPB,

$$=> (PB)^2 = (OB)^2 - (OP)^2$$

$$=> (PB)^2 = (5)^2 - (3)^2$$

$$=> (PB)^2 = 25 - 9 = 16$$

$$=> PB = \sqrt{16} = 4 \text{ cm}$$

$\therefore$ AB = $2 \times 4 = 8$ cm

=> Ans - (D)

Question 20

Inside a square ABCD, $\triangle BEC$ is an equilateral triangle. If CE and BD interesect at O, then $\angle BOC$ is equal to

A $60°$

B $75°$

C $90°$

D $120°$

Answer: B

Explanation:

In square ABCD, $\triangle$ BEC is an equilateral triangle

Each angle of an equilateral triangle is $60°$

$\Rightarrow \angle$ OCB $= 60°$

$\angle$ DBC $= \frac{90°}{2} = 45°$ ($\because$ BD is diagonal of ABCD)

In $\triangle$ OBC,

$\angle$ OBC$+\angle$ OCB$+\angle$ BOC $= 180°$

$60° + 45° + \angle BOC = 180°$

$\therefore \angle BOC = 75°$

Question 21

A point D is taken from the side BC of a right angled triangle ABC, where AB is hypotenuse. Then,

A $AB^2 + CD^2 = BC^2 + AD^2$

B $CD^2 + BD^2 = 2AD^2$

C $AB^2 + AC^2 = 2AD^2$

D $AB^2 + AD^2 = BD^2$

Answer: A

Explanation:

$\triangle$ ABC is a right angled triangle right angled at C

$\Rightarrow AB^2 = AC^2 + BC^2$ (From Pythagoras theorem)

$\Rightarrow AC^2 = AB^2 - BC^2$

From $\triangle ACD, AD^2 = AC^2 + CD^2$

Substituting $AC^2 = AB^2 - BC^2$ in above equation

$AD^2 = AB^2 - BC^2 + CD^2$

$\Rightarrow AB^2 + CD^2 = BC^2 + AD^2$

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Question 22

Let C be a point on a straight line AB. Circles are drawn with diameters AC and AB. Let P be any point on the circumference of the circle with diameter AB. If AP meets the other circle at Q, then

A QC // PB

B QC is never parallel to PB

C QC = $\frac{1}{2}$ PB

D QC // PB and QC = $\frac{1}{2}$ PB

   Answer: A

Explanation:

In △ AQC,

∠ AQC $= 90°$ (∵ Angle in a semi circle is $90°$)

and in △ APB,

∠ APB $= 90°$ (∵ Angle in a semi circle is $90°$)

Comparing two triangles △ APB and △ AQC,

∠ QAC $= \angle PAB$

∠ AQC $= \angle APB$

∴ $\triangle APB = \triangle AQC$

∴ QC // PB

Since we cannot prove that C is exactly midpoint of AB, QC $= \frac{1}{2}$PB cannot be proved

Question 23

An isosceles triangle ABC is right angled at B.D is a point inside the triangle ABC. P and Q are the feet of the perpendiculars drawn from D on the sides AB and Ac respectively of $\triangle ABC$. If AP = a cm, AQ = b cm and $\angle BAD$= 15°, sin $75°$ =

A $\frac{2b}{\sqrt{3}a}$

B $\frac{a}{2b}$

C $\frac{\sqrt{3}a}{2b}$

D $\frac{2a}{\sqrt{3}b}$

   Answer: C

Explanation:

△ ABC is a right angled isosceles triangle right angled at B

Here $\angle A = \angle C$

$90° + 2\angle A = 180°$

$\therefore \angle A = \angle C = 45°$

Given $\angle BAD = 15°$

From $\triangle$ ABC, $\angle BAC = \angle BAD + \angle DAQ$

$\Rightarrow 45° = 15° + \angle DAQ$

$\therefore \angle DAQ = 30°$

From $\triangle DAQ, \angle AQD = 90°$ and $\angle DAQ = 30°$

$\angle AQD + \angle DAQ + \angle ADQ = 180°$

$90° + 30° + \angle ADQ = 180°$

$\Rightarrow \angle ADQ = 60°$

$From \triangle ADQ,$

$\sin 60° = \frac{AQ}{AD}$

$\frac{\sqrt{3}}{2} = \frac{b}{AD}$ ($\because \sin 60° = \frac{\sqrt{3}}{2}$)

AD = $\frac{2b}{\sqrt{3}}$

In $\triangle APD, \angle APD = 90°$ and $\angle PAD = 15°$

$\angle APD + \angle PAD + \angle ADP = 180°$

$90° + 15° + \angle ADP = 180°$

$\Rightarrow \angle ADP = 75°$

From $\triangle$ APD,

$\sin 75° = \frac{AP}{AD}$

Substituting AD = $\frac{2b}{\sqrt{3}}$ in above equation

$\Rightarrow \sin 75° = \frac{a}{\left(\frac{2b}{\sqrt{3}}\right)}$

$\therefore \sin 75° = \frac{\sqrt{3}a}{2b}$

Question 24

Each interior angle of a regular octagon in radians is

A $\frac{\pi}{4}$

B $\frac{3\pi}{4}$

C $\frac{2\pi}{3}$

D $\frac{1}{3}\pi$

Answer: B

Explanation:

Each angle of a regular Octagon = $\frac{1}{8}(2n-4)$ right angle where n=no. of sides

= $\frac{1}{8}(2 \times 8 - 4) \times 90°$

= $\frac{12 \times 90°}{8}$ = $135°$

$180° = \prod$

$135° = \frac{\prod}{180} \times 135° = \frac{3\prod}{4}$

Question 25

Find the value of $\sqrt{30 + \sqrt{30 + ...}}$

A 5

B 3

C 6

D 7

Answer: C

Explanation:

Let X= $\sqrt{30 + \sqrt{30 + ...}}$

Above equation can be written as

X= $\Rightarrow \sqrt{30 + X}$

Squaring on both sides

X^2 =30+X

X^2 -X-30=0

X^2 -6X+5X-30=0

X(X-6)+5(X-6)=0

(X-6)(X+5)=0

X=-5,6

Taking positive value

X=6

Instructions

Select the related word/number from the given alternatives.

Question 26

Brain : Nerves : : Computer ?

A Calculator

B Keyboard

C Mouse

D CPU

   Answer: D

Explanation:
Nerves helps the brain to function in the same way CPU helps the computer to function.

Hence, option D is the correct answer.

Question 27

Silkworm : Silk Saree : : Cobra :?

A Antidote

B Poison

C Death

D Fear

   Answer: B

Explanation:
Silkworm produces silk whereas cobra produces poison.

Hence, option B is the correct answer.

Instructions

Find the odd word from the given alternatives.

Question 28

A Cover

B Enclose

C Bag

D Annex

   Answer: C

Question 29

a: Illusion
b: Delusion
c: Identification
d: Hallucination

A A

B B

C C

D D

   Answer: C

Explanation:
All the given words are synonyms except 'Identification'

Hence, option C is the correct answer.

Instructions
For the following questions answer them individually

Question 30

Arrange the following words according to dictionary:
1: Inadequate
2: Institution
3: Inhospitable
4: Improvement

A 4, 2, 3, 5, 1

B 4, 1, 3, 5, 2

C 4, 1, 5, 3, 2

D 4, 1, 5, 2, 3

   Answer: C

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Question 31

Identify the correct answer containing letters which will most appropriately fill in the blanks.
a b a - a b - b - b a -

A   a, a, a, b

B   b, a, b, a

C   b, a, a, b

D   a, b, b, b

  Answer: C

Explanation:

The pattern followed here is,

a b a b a b a b a b (repeating 'ab' for 6 times). Option C exactly fits in the blanks.

Hence, option C is the correct answer.

Instructions

Select the missing letter/number from the given responses.

Question 32

?, 187, 2057, 22627

A   25

B   27

C   15

D   17

  Answer: D

Explanation:
Every number is multiplied by 11.

17 x 11 = 187,

187 x 11 = 2057,

2057 x 11 = 22627.

Hence, option D is the correct answer.

Question 33

C, F, I, L, ?, R, U, X

A A

B T

C M

D O

   Answer: D

Explanation:
The pattern followed here is,

C + 2 = F,

F + 2 = I,

I + 2 = L,

L + 2 = O.........

Hence, option D is the correct answer.

SSC GD Previous Question papers (download pdf)

Instructions
For the following questions answer them individually

Question 34

Nikhil was facing East. He walked 6 km forward and then after turning to his right walked 2 km. Again he turned to his right and walked 6 k. After this, he turned back. Which direction he was facing at that time ?
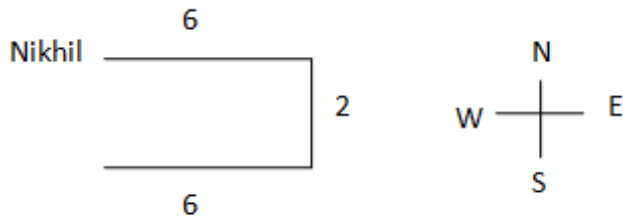
A East

B West

C North

D North-South

   Answer: A

Explanation:

Nikhil faces East finally after turning back.

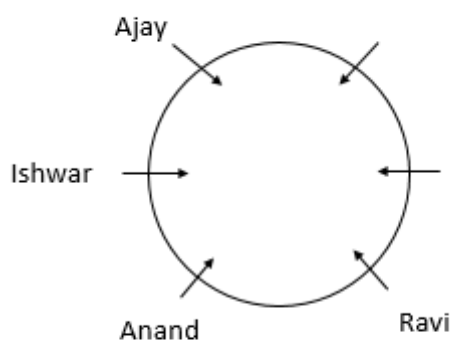Hence, option A is the correct answer.

Question 35

Six boys are standing in such a manner that they form a circle facing the centre. Anand is to the left of Ravi. Shankar is in between Ajay and Vivek. Ishwar is between Anand and Ajay. Who is to the left of Vivek ?

A Ravi
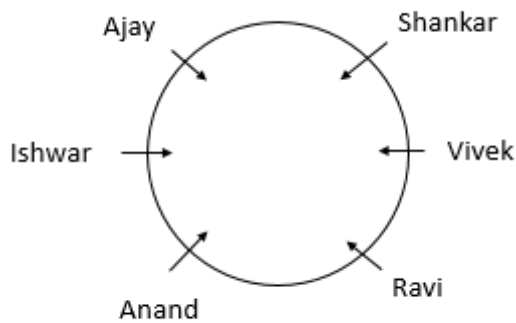
B Ishwar

C Ajay

D Shankar

Answer: A

Explanation:
Anand is to the left of Ravi. Ishwar is between Anand and Ajay. From this conditions arrangement will be,

Shankar is in between Ajay and Vivek. Final arrangement will be,

From the above arrangement,

Ravi is to the left of vivek.

Hence, option A is the correct answer.

Question 36

From the given alternatives, select the word which cannot be formed using the letters of the given word. CONSIDERATION

A CONSIDER

B CONCERN

C NATIN

D RATION

Answer: B

Question 37

If EARN is written as GCTP, how NEAR can be written in that code ?

A CTGP

B GPTC

C PGCT

D PCGT

Answer: C

Explanation:
The pattern followed here is,

E + 2 = G ; A + 2 = C ; R + 2 = T ; N + 2 = P i.e (n + 2)

NEAR is coded as,

N + 2 = P ; E + 2 = G ; A + 2 = C ; R + 2 = T

NEAR - PGCT

Hence, option C is the correct answer.

Question 38

If AMPLIFY is written as YFILPMA In a certain code, how would NATIONAL be written in that code ?

A LANONATI

B LANOITAN

C LANTANIO

D LANTION

Answer: B

Explanation:

The positions of alphabets in the given word are reversed.

Hence, the code for NATIONAL will be LANOITAN

Hence, option B is the correct answer.

Question 39

The population of a developing country is increasing year by year. Find out the current year population, from the following information:
Year 2004 2005 2006 2007 2008 2009
Pop. in lakhs 30 60 120 210 230 ?

A 390

B 450

C 480

D 510

Answer: C

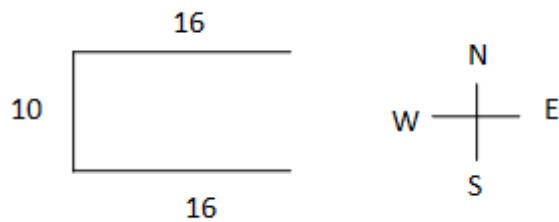# Daily Free Online GK tests

Question 40

Gokul travelled 16 kms west ward, then he turned left and travelled 10 kms. Then he turned left and travelled 16 kms. How far was Gokul from the starting point ?

A   16 kms

B   26 kms

C   10 kms

D   6 kms

   Answer: C

Explanation:
From the given information,

Gokul was 10 kms far from his starting point.

Hence, option C is the correct answer.

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