TCS Aptitude & Reasoning

1.A is able to do a piece of work in 15 days and B can do the same work in 20 days. If they can work together for 4 days, what is the fraction of work left?

a)13/15

b)7/15

c)8/15

d)4/11

e)Other than those given as options

Answer:Option C

Explanation:

Total work done by A + B in 1 day =

(1/15 + 1/20) = 7/60

Work done in 4 days = (7/60 * 4) = 7/15

Therefore, fraction of work left = (1 - 7/15) = 8/15

2.If (4x/3 + 2R) = 12 for what value of R, x = 6?

a)4

b)5

c)6

d)2

e)3

Answer:Option D

Explanation:

When x = 6, (4 * 6)/3 + 2R = 12

8 + 2R = 12

2R = 12 – 8 = 4

R = 2

3.What is the fourth proportional of 0.006, 1.2 & 6/25?

a)36

b) 4.8

c)48

d)3.6

Answer:Option C

Explanation:

Let the fourth proportional be x

Then,

0.006: 1.2 :: 6/25 : x

0.006 * x = 1.2 * 6/25 (Since Product of means = Product of extremes)

x = (1.2*6)/(25*0.006)

x = 7.2/0.15

x = 48

4.The index numbers of five commodities are 121, 123, 125, 126, 128 and the weights assigned to these are respectively 5, 11, 10, 8, 6. Then what is the weighted average index number?

a) 123.8

b) 124.2

c) 124.6

d) 125.2

Answer: Option C

Explanation:

Weighted average = Sum of all the weights / Total number of weights

Sum of all the weights = 121*5 + 123*11 + 125*10 + 126*8 + 128*6

= 605 + 1353 + 1250 + 1008 + 768

= 4984

Number of weights = 5 + 11 + 10 + 8 + 6

= 40

Weighted average = 4984 / 40

= 124.6

5.Percent profit earned when an article is sold for Rs. 546/- is double the percent profit earned when the same article is sold for Rs. 483/-. If the marked price of the article is 40% above the cost price, what is the marked price of the article?

a)Rs. 588/-

b)Rs. 608/-

c)Rs. 616/-

d)Rs. 596/-

e)Rs. 586/-

Answer: Option A

Explanation:

Let profit be P and Cost Price= x

Now, x+2P=546

x+P=483

subtracting both,

P=63

x=483-63=420

Marked price = 1.4*420=588

6.Two ants of length 1 cm and 1.2 cm crawl in opposite directions with average speeds of 2 and 3 mm per second respectively. How many seconds will they take to cross each other?

a) 4.4

b) 2.8

c) 0.4

d) 1.5

Answer: Option A

Explanation:

Relative distance to be covered = Sum of the lengths of ants

= 1 + 1.2

= 2.2 cm

= 22 mm (1 cm = 10 mm)

Relative speed when bodies move in opposite directions = Sum of the speeds

= 2 + 3

= 5 mm per second

Time taken to cross each other = Relative distance / Relative speed

= 22/5

= 4.4 seconds

7.A certain sum of money is sufficient to pay either George’s wages for 15 days or Mark's wages for 10 days, for how long will it suffice if both George and Mark work together?

a)9

b)8

c)6

d)5

Answer: Option C - 6

Explanation

Let the money be paid = 30 rupees.

So, George daily wage = 30/15 = 2

and Mark daily wage = 30/10 = 3.

If both are working,

then 5 rupees to be paid.

So a given sum is sufficient for 30 / 5 = 6 days.

8.In a test with 26 questions, five points were deducted for each wrong answer and eight points were added for every correct answer. How many were answered correctly if the score was zero?

a)15

b)10

c)20

d)25

Answer: Option B - 10

Explanation

Given,

Total question = 26,

Let x be the number of questions which are correct,

The number of questions that are incorrect = 26 - x,

Now, five points were deducted for each wrong answer and eight points were added for every correct answer,

Thus, the total score = 8x - 5(26-x)

According to the question,

8x - 5(26-x) = 0

⇒ 8x - 130 + 5x = 0

⇒ 13x = 130

⇒ x = 10

9.A person can row 750 meters against the stream in 11 ¼ minutes and returns in 7 ½ minutes. The speed of the person in in still water is :

a) 2 km/hr

b) 3 km/hr

c) 4km/hr

d) 5 km/hr

Answer: Option D - 5km/hr

Explanation

The speed in upstream = .75 * (4/45)*60 = 4 kmph

The speed in downstream = .75 *(2/15) *60 = 6 kmph

Speed in still water = ½(4+6) = 5 kmph

10.A person purchases tomatoes from each of the 4 places at the rate of 1 kg, 2 kg, 3 kg, 4 kg per rupee respectively. On an average he has purchased x kg of tomatoes per rupee. Then the value of x is

a)2

b)2.5

c)1.92

d)None of these

Answer: Option B - 2.5

Explanation

x = 10/4 = 2.5

11.A fast train takes 3 hours less than a slow train for a journey of 600 km, If the speed of the slow train is 10 km/hr less than that of the fast train, the speeds of the two trains are

a)60 km/hr and 70 km/hr

b)50 km/hr and 60 km/hr

c)40 km/hr and 50 km/hr

d)30 km/hr and 40 km/hr

Answer: Option C - 30 km/hr and 40km/hr

Explanation:

(600/x)-(600/x+10)=(3/1)

Solving this, we get x = 40

12.An article is bought for Rs. 600 and sold for Rs. 750. The gain percent is:

a)20%

b)25%

c)30%

d)None

Answer: Option B - 25%

Explanation:

Gain % = ((750-600)/600) *100 = 25%

13.A number is such that when it is multiplied by ‘8’, it gives another number which is as much more than 153 as the original number itself is less than 153. What is 25% of the original number?

a)8

b)7.5

c)10

d)8.5

e)6.5

Answer: Option D - 6.5

Explanation

Let the no. be X

Given 8X-153=153-X

Hence X=34

25% of X=8.5

14.The air-conditioned bus service from Siruseri industry park runs at regular intervals throughout the day. It is now 3:12 pm and it arrived 1 minute ago but it was 2 minutes late. The next bus is due at 3:18 pm. When is the next bus due?

a)3:35 pm

b)3:27 pm

c)3:25 pm

d)3:24 pm

Answer:Option B - 3:27 pm

Explanation:

Time right now = 3:12 pm

Time at which the bus should have arrived = 3:09 pm

The next bus timing = 3:18 pm

The interval between 1st bus and 2nd bus = 0.09 min

so next bus will be at = 3:18 +0.09= 3:27 pm

15.A, B, and C can together do some work in 72 days. A and B can together do two times as much work as C alone, and A and C together can do four times as much work as B alone. Find the time taken by C alone to do the whole work.

a)360 days

b)216 days

c)180 days

d)144 days

Answer:Option B -216 days

Explanation:

The work done by A, B and C together =A + B + C = 72 days

A + B = 2C

A + C = 4B

On solving, we get 3C = 72 days and hence C = 72*3 = 216 days

16.A man was employed on the promise that he will be paid the highest wages per day. The contract money to be paid was Rs. 1189. Finally he was paid only Rs. 1073. For how many days did he actually work?

a)39

b)40

c)37

d)35

Answer: Option C - 37

Explanation:

HCF of 1189, 1073 = 29

1073/29 = 37

17.If the population of a certain city increases at the rate of 5%. If the population in 1981 was 138915, then the population in 1978 was?

A) 1,20,000

B) 1,10,000

C) 1,00,000

D) 90,000

Answer: Option A - 1,20,000

Explanation:

X * (105/100) * (105/100) * (105/100) = 138915

X = 138915/1.157625

X = 120000

18.How many number plates can be made if the number plates have two letters of the English alphabets (A-Z) followed by two digits (0-9) if the repetition of digits or alphabets is not allowed?

a)56500

b)58500

c)56800

d)52500

Answer:Option B -58500

Explanation:

The number of English alphabets (a-z) = 26

The number of digits (0-9) = 10

Number of ways to arrange two alphabets without repetition = 26*25

Number of ways to arrange two digits without repetition = 10*9

Number of number plates that can be made = 26*25*10*9 = 58500

19.A man spends 10% of his income on house rent, 20% of the rest on his children's education, 25% of the rest on miscellaneous causes. If he now possesses Rs. 1944 then his income is?

A) Rs.3600

B) Rs.4000

C) Rs.4500

D) Rs.3000

Answer: Option A - Rs.3600

Explanation:

X * (90/100) * (80/100) * (75/100) = 1944

X * 0.9 * 0.8 * 0.75

X = 1944/0.54

X = 3600

20.Nine men went to a hotel. Eight of them spent Rs.3 each over their meals and the ninth spent Rs.2 more than the average expenditure of all the nine. Determine the total money spent by them?

A) Rs.29.25

B) Rs.30.25

C) Rs.32

D) Rs.35

Answer: Option A - Rs 29.25

Explanation:

Average of 9 = x

9x = 8 * 3 + x * 2 x = 3.25

Total = 9 * 3.25 = 29.25