

Accenture previous placement questions - 3

1. A man purchased a watch for Rs. 400 and sold it at a gain of 20% of the selling price. The selling price of the watch is ?

Answer: 480

Explanation:

C.p. = Rs 400

Gain = 20%

$$S.P = C.P \times \frac{100 + p\%}{100} = 480$$

2. The cost of two varieties of paint is Rs. 3969 per 2 kg and Rs. 1369 per 2 kg respectively. After how many years will the value of both paint be the same, if variety 1 appreciates at 26% per annum and variety 2 depreciates at 26% per annum ?

Answer: 2

Explanation:

Simply appreciates variety 1 by 26% and depreciates variety 2 by 26% as:

$$3969\left(1 - \frac{1}{26}\right)^n = 1369\left(1 + \frac{1}{26}\right)^n$$

For n = 2 we get both values equal.

Variety 2	Variety 1	
3969.00	1369	Initially
2937.06	1724.94	after I year
2173.42	2173.42	after II year

So the price become same after 2 years.

3. An exhibition was conducted for 4 weeks. The number of tickets sold in 2nd week was increased by 20% and increased by 16% in the 3rd week but decreased by 20% in the 4th week. Find the number of tickets sold in the beginning, if 1392 tickets were sold in the last week ?

Answer: 1250

Explanation:

Let initially A tickets have been sold.

So now in 2nd week 20% increases so

$$A \times \frac{120}{100}$$

In 3rd week 16% increases so

$$A \times \frac{120}{100} \times \frac{116}{100}$$

In 4th week 20% decrease so

$$A \times \frac{120}{100} \times \frac{116}{100} \times \frac{120}{100} = 1392$$

$$A = 1250$$

4. Let 13 and 273 are the HCF and LCM of two numbers respectively, and if one of them is less than 140 and greater than 60 then what will be that number?

Answer: 39 & 91

Explanation:

Let two numbers be ah and bh.

As h is 13, we get the numbers as 13a, 13b.

$$\text{LCM} = 13ab.$$

$$\text{So } 13ab = 273$$

$$\Rightarrow ab = 21.$$

$$\text{So } a = 7 \text{ or } 3.$$

One of this number is 39 or 91. Given that the number is greater than 60, we take 91 as the required number.

5. In an exam, Ajith, Sachu, Karna, Saheep and Ramesh scored an average of 39 marks. Saheep scored 7 marks more than Ramesh. Ramesh scored 9 fewer than Ajith. Sachu scored as many as Saheep and Ramesh scored. Sachu and Karna scored 110 marks between them. If Ajith scores 32 marks then how many marks did Karna score?

Answer: 57

Explanation:

Let marks of Ajith = a ; Sachu = sc ; Karna = k ; Saheep = sh and Ramesh = r then

$$sh - r = 7 \quad \text{---- (i)}$$

$$a - r = 9 \quad \text{---- (ii)}$$

$$sc = sh + r \quad \text{---- (iii)}$$

$$sc + k = 110 \quad \text{---- (iv)}$$

Also given a = 32

So from (ii) r = 23 and from (i) sh = 30, from (iii) sc = 53, from (iv) k = 57.

6. The average number of visitors of a library in the first 4 days of a week was 58. The average for the 2nd, 3rd, 4th and 5th days was 60. If the number of visitors on the 1st and 5th days were in the ratio 7:8 then what is the number of visitors on the 5th day of the library?

Answer: 64

Explanation:

If number of visitors on 1st, 2nd, 3rd, 4th and 5th day are a, b, c, d and e respectively then

$$a + b + c + d = 58 \times 4 = 232 \quad \text{--- (i)}$$

$$b + c + d + e = 60 \times 4 = 240 \quad \text{--- (ii)}$$

$$\text{Subtracting (i) from (ii), } e - a = 8 \quad \text{--- (iii)}$$

Given that e : a = 8 : 7

Let $e = 8x$ and $a = 7x$.

Given, $8x - 7x = 8 \Rightarrow x = 8$ --- (iv)

So $a = 56$ and $e = 64$.

7. A man said to a lady, "Your mother's husband's sister is my aunt". How is the lady related to the man.

Answer: Brother

Explanation:

Mother's husband is nothing but Father of the lady. So father's sister will be Aunt to the Lady. But in question, they gave that, mother's husband's sister is Man's Aunt. So she is aunt to both the Lady and Man. So they should be brother and sister.

8. If a man reduces the selling price of a fan from 400 to 380 his loss increases by 20%. What is the cost price of fan ?

Answer: 500

Explanation:

Let the cost price be x . Then initial loss = $x - 400$

Given that $20\% (x - 400) = 20$

$$\Rightarrow x - 400 = 100$$

$$\Rightarrow x = 500$$

9. 260 can be represented as:

A) @****@**

B) @@*@@@@@@@

C) @@*@@@@**

D) @*****@**

Answer: D

Explanation:

260 can be written in binary format as $(100000100)_2$

Replacing 1 with @ and 0 with *, we get option d.

10. A piece of ribbon 4 yards long is used to make bows requiring 15 inches of ribbon for each. What is the maximum number of bows that can be made?

A. 8

B. 9

C. 10

D. 11

E. 12

Answer: B

Explanation:

1 yard = 3 feet = $3 \times 12 = 36$ inches

4 yard = $4 \times 36 = 144$ inches

Number of maximum bows that can be made = $\frac{144}{15} = 9.6$

Option B is correct.

11. A teacher can divide her class into groups into groups of 5, 13 and 17. What is the smallest possible strength of the class?

- a. 835
- b. 940
- c. 1105
- d. 1220

Answer: C

Explanation:

For smallest possible class strength, we consider LCM of the given numbers. So $\text{LCM}(5, 13, 17) = 1105$.

12. If QUESTION = DOMESTIC what will b code for RESPONSE ?

- 1. OMESUCEM
- 2. OMESICSM
- 3. OMESICEM
- 4. OMESISCM

Answer : 3

Explanation:

Q U E S T I O N
D O M E S T I C

We can see in the word 'RESPONSE' only R and P are the letters whose code is not given, by having a look on options we can say code for R is O and code for P is S (because common in all options).

Now we can easily code the word 'RESPONSE' as 'OMESICEM'.

13. A box contains 90 bolts each of 100 gm and 100 bolts each of 150 gm. If the entire box weighs 35.5 kg., then the weight of the empty box is :

- A. 10 kg
- B. 10.5 kg
- C. 11 kg
- D. 11.5 kg
- E. None of the above

Answer: B

Explanation:

Let the weight of Empty box be x

$$90 \times 0.100 + 100 \times 0.150 + x = 35.5$$

Then $x = 10.5$ kg

14. The average age of 10 members of a committee is the same as it was 4 years ago, because an old member has been replaced by a young member. Find how much younger is the new member?

Answer: 40

Explanation:

Let the average of all 10 members 4 years ago was x . After 4 years, 10 members age increases by $10 \times 4 = 40$.

But there is no change in the average as a person is replaced by a younger one. Which means, the younger one age is 40 years less than the old one.

15. If the radius of a circle is increased by 20% then the area is increased by:

- a) 44%
- b) 120%
- c) 144%
- d) 40%
- e) None of the above

Answer: a

Explanation:

Let say radius = $\pi r^2 = \pi 10^2 = 100\pi$

New radius = $10 \times 120\% = 12$

New area = $\pi 12^2 = 144\pi$

Increment = $\frac{144\pi - 100\pi}{100\pi} \times 100 = 44\%$

16. When Raja was born, his father was 32 years older than his brother and his mother was 25 years older than his sister. If Raja's brother is 6 years older than Raja and his mother is 3 years younger than his father, how old was Raja's sister when Raja was born?

Answer: 10 year

Explanation:

Raja's brother 6 year old when Raja was born.

His father's age = $32 + 6 = 38$ year

His mother's age = 35 year

His sister age = $35 - 25 = 10$ years

17. A man purchased a watch for Rs.400 and sold it at a gain of 20% of the selling price. The selling price of the watch is:

Answer:

Explanation:

Cost price = 400

Gain% = 20%

$$\text{Gain} = 400 \times \frac{20}{100} = 80$$

$$\text{Cost price} = 400 + 80 = 480$$

18.If

$$1111 = r$$

$$2222 = t$$

$$3333 = e$$

$$4444 = n$$

$$5555 = ?$$

Answer:

Explanation:

$$1 + 1 + 1 + 1 = 4$$

Four last letter is r

Similarly

$$5 + 5 + 5 + 5 = 20 \text{ i.e twenty so ans is Y.}$$

19. A new apartment complex purchased 60 toilets and 20 shower heads. If the price of a toilet is three times the price of a shower head, what percent of the total cost was the cost of all the shower heads?

a) 9%

b) 10%

c) 11%

d) 13%

e) 15%

Answer:b

Explanation:

Let the cost of shower head is x. Then the cost of the toilet = 3x.

$$\text{Total cost of 60 toilets and 20 shower heads} = 60 \times 3x + 20 \times x = 200x$$

$$\text{So shower heads cost as a percentage of total cost} = \frac{20x}{200x} \times 100 = 10\%$$

20. Find the smallest number which leaves 22,35, 48 and 61 as remainders when divided by 26, 39, 52 and 65 respectively.

Answer: 776

Explanation:

$$\text{LCM of (26,39,52,65)} = 780$$

$$\text{Required number} = 780 - 4 = 776$$