1. Refer to the terms given below. There is a pattern that defines the relationship between the first two terms. Determine this relationship and then identify the missing term of the second pair, such that both the pairs are analogous.

QDXM : SFYN :: UIOZ :

a) PAQM b) LPWA c) QNLA d) WKPA

**Ans**:In given sequence QDXM : SFYN please notice the difference between letters in generated code

Q (2) S; D (2) F; X (1) Y; M (1) N

Using same method UIOZ:WKPA

U (2) W; I (2) K; O (1) P; Z (1) A

1. If FEATURES is written as GCDPZLLK in a code, what will be the fourth letter from the left, if ADVANTAGE is written in that code?

a) E b) F c) W d) X

**Ans:**ADVANTAGE is coded as BBYWSNHYN so correct option is 3) W

1. If log x =(1/2) log y = (1/5) log z, the value of x^4\*y^3\*z^-2 is:

**Ans:**see if : log(x) = (1/2) log(y) = y = x^2 ---(1)

log(x) = (1/5) log(z) => z = x^5 ------(2)

So put y= x^2 & z = x^5 in given Series : x4\*y3\*z-2

So ( x4\*x^6\*1/x^10) =x^0 =1

So answer will be 1 only

1. log y 1369y=3 then what is the value of y?

**Ans:** log y raised to the power of 3;

y^3 = 1369y

y^2 = 1369

y =37

1. Four bells begin to toll together and then each one at intervals of 6 s, 7 s, 8 s and 9 s respectively. The number of times they will toll together in the next 2 hr is:

a)14 times b)15 times c)13 times d)11 times

1. Ans: lcm of 6,7,8,9=504 sec

in 2 hrs =3600\*2 sec

so no times they will ring =3600\*2/504==14 times

we have to add 1 in 14 (14+1=15)

so ans=15

1. If log8 x + log8 (1/6) = 1/3 then the value of x is:

a)12 b)16 c)18 d)None

Ans:log8 X+log8(1/6)=1/3

we know that: loga(XY)=logaX+logaY

so we have a=8 ,Y=1/6

using above formula:

log8(X/6)=1/3

X/6=8^1/3

X/6=2^3\*1/3

X/6=2

X=12

1. what is the greatest positive power of 5 that divides 30! Exactly.

a)5 b)6 c)7 d)8

1. In a test called ACSAT, the average marks of the 15 test takers is 240. If the marks of 5 test takers are subtracted , the average marks decreases by 40 . What is the average marks of 5 test takers ?

a)1600 b)320 c)200 d)40

Ans: Total marks for 15 students = 240 \* 15 = 3600

Avg marks for 10 students = 240 - 40 =200

Total marks for 10 students = 200\* 10 = 2000

Total marks for 5 students = 3600 - 2000 =1600

Avg = 1600/ 5 = 320

1. A boy has 4 different boxes and 5 different marbles. In how many ways can he place the marbles in the boxes such that each box has at least one marble ?

a) 560 b) 240 c) 420 d) 36

Ans:4 different boxes and 5 different marbles to be placed such that each box has at least one marble so three box will contain one marble & one box will 2 marbles

5=1+1+1+2

(2,1,1,1) => 5C2\*3\*2\*1=60

(1,2,1,1) => 5\*4C2\*2\*1=60

(1,1,2,1) => 5\*4\*3C2\*1=60

(1,1,1,2) => 5\*4\*3\*2C2=60

total no of ways= 60+60+60+60=240

1. A number X when divided by 13 leaves the remainder 12 what is the remainder when we divide X13 by 13?

Ans: let x= 13+12=25

now x13/13

== 2513%13= 4(correct answer)

1. In an examination 10 questions are to be answered choosing at least 4 from each of part A and part B. If there are 6 questions in part A and 7 in part B, in how many ways can 10 questions be answered ?

a)212 b)266 c) 272 d)312

Ans: A(Total=6) B(Total=7)

(Total 10) 4 6 = 6C4\*7C6

(Total 10) 5 5 = 6C5\*7C5

(Total 10) 6 4 = 6C6\*7C4

Total no. of ways = (6C4\*7C6)+(6C5\*7C5)+(6C6\*7C4)=266

### Ratio between speed of two trains is 5:3.first train runs 350km in 2hrs..then the speed of second train is??

Ans: Speed of 1st train in one hr.= 350/2 kmph = 175kmph

Let the speed of 2nd train be 'x'

Then,

175/x=5/3;

x=175\*3/5;

x=105kmph (Ans)

1. Ravi has a bag full of 10 Nestle and 5 Cadbury chocolates. He draws two chocolates. What is the probability that he got at least one Nestle chocolate?

Ans:we will find probablity of 0 selection then subtract it from 1

P(at least one) = 1- P(no)

1- 5c2/15c/2

1-2/21

19/21

1. From the given anagrams, select the odd one out

1)LABLOTOF 2)ONSE 3)CEKTRIC 4)SNINET

Ans: 1)FOOTBALL

2)NOSE

3)CRICKET

4)TENNIS

SO (2)NOSE IS ODD ONE OUT SINCE IT IS CLEARLY NOT A SPORT..

1. LCM of two numbers is 120 and their HCF is 10. Which one of the following be the sum of two numbers?

a) 140 b) 80 c) 60 d) 70

Ans: HCF=10 , LCM=3\*4\*10 SO 10 include in both number

so no is 3\*10=30 and 4\*10=40

sum of number is 70(d)

1. A bag contains 10-paisa, 20-paisa and 25-paisa coins in the ratio 7:4:3. If the total value is Rs. 90, the number of 25-paisa coins in the bag is:

**Ans:** let the number of 10p, 20p and 25p coins be 7x, 4x and 3x respectively.

then, 7x/10 + 4x/5 + 3x/4 = 90

so, x = 40

therefore, number of 25p coins = 3\*40 = 120.

1. Ques. MPSV : HKNQ :: PSVY :?

a) CIFL b) LCIF c) CFIL d) ICFL

Ans: MPSV : M=13 P=16 S=19 v=22

HKNQ : H=8 K=11 N=14 Q=17

PSVY : P=16 S=19 V=22 Y=25

CFIL : C=3 F=6 I=9 L= 12..........increment +3

1. What is the next number of the following sequence

79,64,26,15,?

a) 9 b) 6 c) 10 d) 8

Ans: 79 => 7\*9+1=64

64 => 6\*4+2=26

26 => 2\*6+3=15

15 => 1\*5+4= 9

**So Ans: 9**

1. A man buys a scooter for Rs. 1400 and sells it at a loss of 15%. What is the selling price of the scooter?
2. a) Rs. 1240 b) Rs. 1190 c) Rs. 1090 d) Rs. 1130

Ans: cost price = 1400

loss = 15%

s.p = 1400\*(15/100)

= 210

therefore subract this 210 from cp = 1400 - 210 = 1190..

1. Prabodh bought 30 kg of rice at the rate of Rs.8.50 per kg and 20 kg of rice at the rate of Rs.9.00 per kg.He mixed the two. At what price (app) per kg should he sell in order to get 20%?

**Ans:** for 30kg rice, the price is 30\*8.50=255

for 20kg rice, the price is 20\*9=180

total 50 kg, the price will be 255+180=435

100%---435

120%---522

the price for 1kg of mixed rice will be=522/50=10.44

1. solve log(base 16)64-log(base 64)16 ..?

**Ans:**log(base 16)64-log(base 64)16

log(base a)b=log b/log a

log(base 16)64=log 64/log 16=log 2^6/log 2^4=6 log 2/4 log 2=6/4

lly for log (base 64)16=4/6

finally, 6/4-4/6=5/6

1. A vendor bought 15 oranges at Rs. 36 for 5 oranges and sold all of them at four oranges for Rs. 45. How much did the vendor earn or lose in this transaction?

a) Loses Rs. 4.05 per orange

b) Gains Rs. 4.05 per orange

c) Gains Rs 60 overall

d) Loses Rs.5 06 per orange

e) Gains Rs. 75.90 overall

**Ans:**vender bought 15 oranges,5 oranges are rs.36 so 15 oranges cost rs.108.

then now the vender selling it at rs.45 for 4 oranges.

so each orange cost 11.25.

the selling price of 15 oranges is rs.168.75

hence the difference between the cost price and selling price is 60.75

hence 15 oranges he gained 60.75 rupees.

so for one orange he got 4.05 gain.

1. A man buys a DVD for 20% less than its value and sells it for 20% more than its value. His gain or loss percent is
2. no profit, no loss
3. 50% profit
4. less than 50% profit
5. more than 50% profit

Ans:

1. If N is a prime number and 9N is less than 180 and greater than 81 then 13N - 7 is
   1. 107
   2. 273
   3. 254
   4. 164

Ans:for 1st year interest is =8000\*15/100=1200

for 2nd year interest is= 1200+(15%of 1200 ie.180) so 1200+180=1380

and for 3rd year interest is =1380+(15%of1380 ie.207) 1380+207=1587

so C.I=1200+1380+1587=4167