One type of liquid contains 25 % of benzene, the other contains 30% of benzene. A can is filled with 6 parts of the first liquid and 4 parts of the second liquid. Find the percentage of benzene in the new mixture

30%

27%

25%

28%

1st type = 25

2nd type = 30%

1st type : 2nd type = 6:4

Cheaper unit Dearer unit

Mean Price

Dearer-Mean : Mean-Cheaper

25 30

x

6 : 4

3 : 2

6/4 =>3/2

(30-x)/(x-25)=6/4

X=27%

HERE=COMES-SHE,(Assume s=8) Find the value of R+H+O

10

13

14

18

HERE+SHE = COMES

H E R E

S H E

--------------

An express A starts at 2.30 pm from nampali station and travels towards vizag station at speed of 80 kmph. Another express starts at 4.30 pm from nampali station to vizag station at speed of 100 kmph. How far away from station Nampali will the two trains meet??

650 km

750 km

700 km

800 km

Relative speed

Same direction = (x-y)

Opposite direction = (x+y)

R.S = 20kmph

R.D = 160km

D=S\*T

T = D/S

=160/20=8hrs

D = S\*T = 100\*8 = 800km

80 \* 10 = 800km

A B

240 100

320 200

800 800

15 Tennis players take part in a tournament. Every player plays twice with each of his opponents. How many games are to be played?

215

123

210

250

15c2 = (15\*14)/(2\*1) = 105 - once

105\*2=210

All kings, jacks, diamonds have been removed from a pack of 52 playing cards and the remaining cards are well shuffled. A card is drawn from the remaining pack. Find the probability that the card drawn is a red queen?

6/31

7/31

5/33

1/33

Kings Jack Diamonds

Diamond = 13 – Ace,1,2,…….J,Q,K

Kings = 3

Jack = 3

13+3+3=19

52 – 19 = 33

2 red queen = heart,diamond

1/33

Seven persons A, B, C, D, E, F and G have participated in a race either on Royal Enfield or on Avengers but not both. Each person should participate in the race and no one should get same rank from 1 to 7.

-E secured 4th rank in the race.

-Exactly two persons should complete the race on Avengers before E.

-No person should complete the race on Avengers before B.

-D completed the race before B.

-F completed the race after both G & A.

-Sixth person completed the race on Avengers.

1 - D -RE

2 - B -Av

3 -

4 - E

5 -

6 -

7 -

D - RE

B - Av

**If C is the seventh person to complete the race, each of the following people could complete the race on Royal Enfield EXCEPT:**

C

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps18.wmfA

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps19.wmfF

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps20.wmfE

**Which one of the following is a complete and accurate list of person, any one of which could be ranked sixth?**

A, B, F, G

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps21.wmfA, D, F, G

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps22.wmfA, C, F, G

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps23.wmfA, D, G

**Which one of the following could be an accurate list, in order, of the first three persons to complete the race?**

F, G, A

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps24.wmfE, F, G

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps25.wmfF, D, B

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps26.wmfD, B, A

**Which one of the following persons will complete the race on Royal Enfield?**

G

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps28.wmfA

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps29.wmfF

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps30.wmfD

**Which one of the following persons will complete the race on Avengers?**

C

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps32.wmfB

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps33.wmfE

C:\Users\hp\AppData\Local\Temp\ksohtml8384\wps34.wmfG

A boat takes 60 minutes less to travel 40 km downstream than to travel the same distance upstream. If the speed of the boat in still water is 15 kmph, find the speed of the stream.

a) 4 kmph b) 2.1 kmph c)2.7 kmph d)3.7 kmph

D = 40km

Speed upstream = (u-v)kmph = (15-v)

Speed Downstream = (u+v)kmph=(15+v)

T=D/S

T = 40/(15+v)

T+1 = 40/(15-v)

40/(15-v) – 40/(15+v) = 1

(40\*(15+v) – 40(15-v))/(15-v)(15+v) = 1

40(15+v) - 40(15-v) = (15-v)(15+v)

600+40v – 600 +40v = 225 – v^2

V^2 + 80v – 225 = 0

V = 2.7kmph

If BRAB+RABE=AADAM what is the value of R+A+B?

a)13

b)12

c)14

d)11

e)None of these

A fruit seller had some apples. He sells 40% apples and still has 420 apples. Originally, he had:

|  |
| --- |
| 588 apples |
| 600 apples |
| 672 apples |
| 700 apples |

100%-40% = 60%

60% of X = 420

X= (420\*100)/60

X=700

A tree breaks and falls to the ground such that its upper part is still partially attached to its stem. At what height did it break, if the original height of the tree was 24 cm and it makes an angle of 30° with the ground?

A.12 cm

B.8 cm

C.9.5 cm

D.7.5 cm

24cm

P

(hyp) 24-h H (opp)

Q 30 (adj) R

Opp = h

Hyp = 24-h

Sin theta = opp/hyp

Sin 30 = h/24-h

1/2 = h/24-h

24-h=2h

24=3h

H=8cm

If books bought at prices ranging from Rs. 200 to Rs. 350 are sold at prices ranging from Rs. 300 to Rs. 425, what is the greatest possible profit that might be made in selling eight books?

A.600

B.1200

C.1800

D.none of these

Lowest CP = 200

Highest SP = 425

Profit = S.P-C.P=425-200 = 225\*8=1800

A Jar contains 18 balls. 3 blue balls are removed from the jar and not replaced.Now the probability of getting a blue ball is 1/5 then how many blue balls jar contains initially ?

1. 9

b)6

c)8

d)7

18 balls

3 blue balls

18-3=15balls

P(a) = F.O/T.O

1/5 = Getting a blue ball/15

No of blue balls out of 15 = 15/5=3

15balls = 3 blue balls

3+3=6