

Here are some solved questions from HP Placement Papers

1) Four persons A, B, C and D are playing cards. Each person has one card, laid down on the table below him, which has two different colours on either side.

No card has the same color on both sides. The colours visible on the table are Red, Green, Red and Blue respectively. They see the color on the reverse side and give the following comment.

A: Yellow or Green

B: Neither Blue nor Green

C: Blue or Yellow

D: Blue or Yellow

Given that out of the 4 people 2 always lie find out the colours on the cards each person.

ANSWER:

Try all possible combinations. Keep in mind two things. THE combination obtained should satisfy the conditions

1. Two are lying and two are telling the truth

2. Neither two cards are similar nor are two sides of a card are of same color

A	YELLOW
B	YELLOW
C	GREEN
D	RED

2) Four tourists A,B,C,D and four languages English, German, French and Italian.

They are not able to converse among themselves in one language.

Though A does not know English he can act as an interpreter between B and C.

No one spoke both French and German. A knows German and was able to converse with D who doesn't know a word in German. Only one language was spoken by more than two persons. Each

spoke two languages. Find who spoke what.

ANSWER:

A	B	C	D
GERMAN	FRENCH	GERMAN	ITALIAN
ITALIAN	ITALIAN	ENGLISH	ENGLISH

3) Grass in lawn grows equally thick and in a uniform rate.

It takes 40 days for 40 cows and 60 days for 30 cows to eat the whole of the grass.

How many days does it take for 20 cows to do the same?

ANSWER:

g - grass at the beginning

r - rate at which grass grows, per day

y - rate at which one cow eats grass, per day

**n - no of cows to eat the grass in 96 days**

$$g + 40*r = 40 * 40 * y \text{----- 1}$$

$$g + 60*r = 30 * 60 * y \text{----- 2}$$

$$g + n*r = 20 * n * y \text{----- 3}$$

**from 1 and 2**

$$r=10y \quad g=120r$$

**from 3**

$$nr=120r$$

**Solving, n = 120**

**4) Lucia is a wonderful grandmother. Her age is between 50 and 70. Each of her sons have as many sons as they have brothers. Their combined number gives Lucia's age. What is the age?**

**ANSWER**

**Let the no. of Lucia's sons = n**

**No. of brothers for each son = n-1**

**No. of sons for each of Lucia's son = n-1**

**Lucia's age = n-1 \* n-1**

**= a perfect square between 50 and 70**

**= 64**