

1.4 ⑥ When a light bulb is on it gets hot. So, flip switch 1 on. Wait 10 minutes and flip off switch 1 and flip on switch 2. Move quickly to the 2nd room.

If the bulb is:

on

off but hot

off but cold

Then

switch 2 is correct.

switch 1 is correct.

switch 3 is correct.

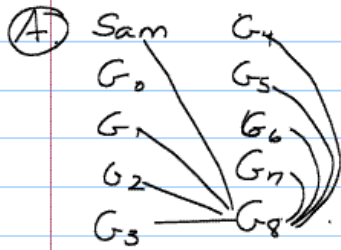
⑦ Spike paid \$9
Slip paid \$9
Milly paid \$7
\$25 } all the money is accounted for.

		Assumed True
⑨	Smith: 3 always tell truth	
A	Schlock: Either Wind or Pocket spilled beans.]	T
B	Wind: It was not Wind and not Slie.]	T
C	Pocket: Schlock lies. Wind lies	F
D	Greed: One of Schlock and Wind lie] contradict	
E	Slie: Greed lied.] each other.	

There can be at most two liars, because three are always truthful. If Pocket (C) tells the truth, then Pocket, Greed and Slie must be truthful, but Greed and Slie contradict each other. Therefore, Pocket must be lying.

Since Wind is telling the truth, he did not do it. Therefore in Schlock's true statement it must be Pocket who spilled the beans.

14. Let $M_1 = \text{Sam Smyth}$ and $F_1 = \text{Stacy Smyth}$. No shaking of spouse's hand

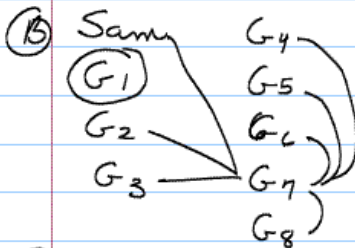


G_9 shook n hands

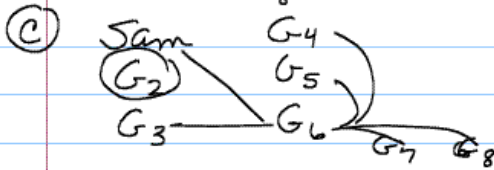
No shaking self hand
 $10 - 2 = \text{max \# of handshakes} = 8.$

How many hands did Stacy shake?

G_8 did not shake hands with G_0 , so $G_8 + G_0$ are a couple and G_1 shook only with G_8 .

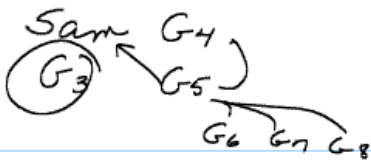


Since G_7 did not shake with G_1 , $G_7 + G_1$ are a couple.



G_2 shook hands with only G_8 and G_7
 G_6 shook hands with everyone remaining but G_2 $\therefore G_6 + G_2$ are a couple.

(D)



G3 shook with G7, G8 & G6.

G5 did not shake hands with G3

\therefore G5 and G3 are a couple

(E)

Sam G4 are the only couple left \therefore Sam & G4 are a couple. G4 is Stacy.

Stacy shook 4 hands.