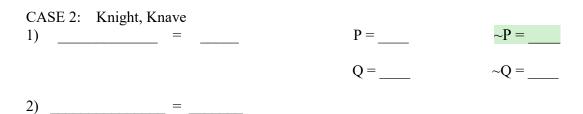
Question 3 (10 Marks) (Time 15 minutes)

The following question relates to the inhabitants of the island of knights and knaves created by Smullyan. The knights only speak the truth when they are full on stomach or when it is friday. The knaves only speak truth in April. In all the other months of the year they will speak lie. You encounter two people A and B. Determine if possible what A and B are if they address you in the way. If you cannot determine what these two people are, can you draw any conclusions? (Marks 10)

A says "The two of us are both knights" and B says "A is a knave"

- 3.1. Assume it is Friday in the month of April
- 3.2. Assume all knights to have full stomach and it is the month of May
- 3.3. Assume it is Monday in the month of June
- 3.4. Assume all knights to have empty stomach and it is the month of April
- 3.5. Assume it Friday in the month of August

Please Note: Your solution should have the	e following form	
P = A is a knight Q = B is a knight	$\sim P = A$ is a knave $\sim Q = B$ is a knave	
CASE 1: Knight, Knight 1) =	P =	~P =
	Q =	~Q =
2) =		



CASE 3: Knave, Knight

1) _____ = ____

P = ____

Q = ____

~Q = ____

2) _____ = ____

CASE 4: Knave, Knave

CASE 4: Knave, Knave

1) ____ = ____

P = ____

Q = ____

~Q = ____

2) _____ = ____

Conclusion: A is ______, B is _____