## Einstein Riddle Homework Assignment

Unfortunately, my Virtual Machine wouldn't run, despite all my efforts to make it work.

That's why I decided to solve this riddle manually.

#### Full Table Solution:

First	Second	Third	Fourth	Fifth
Yellow	Blue	Red	Green	White
Water	tea	Milk	Coffee	Beer
Norwegian	Dane	Brit	German	Swede
Dunhill	Blends	Pall Mall	Prince	Blue Master
Cats	Horses	Birds	FISH	Dogs

#### Step 1: Make a grid

House Number	1	2	3	4	5
Number					
Colour					
Nationality					
Smoke					
Drink					
Pet					

#### Step 2: Fill in the Easy Clues

- The Norwegian lives in the first house
- The Norwegian lives next to the blue house
- The man living in the center house drinks milk
- The Green house is next to, and to the left of, the white house
  & The Owner of the Green house drinks Coffee
  (We are looking for a spot with no beverage and no color itself and to the right which only applies to 4)
- 5 is the White House
- The brit lives in the red house (only 3 has no color and nationality assigned to yet)
- The last color is Yellow which is house number 1
- The owner of the Yellow House smokes Dunhill
- The man who keeps horses lives next to the man who smokes Dunhill
- Step 1: make a grid

House	1	2	3	4	5
Number					
Colour	Yellow	Blue	Red	Green	White
Nationality	Norwegian		Brit		
Smoke	Dunhill				
Drink			Milk	Coffee	
Pet		Horses			

### Step 3: Make a list of all Values that are left and their possible values

Nationality:	Swede, Dane, German
Smoke	Pall Mall, Blue Master, Blends, Prince
Drink	Tea, Beer, Water
Pet:	Fish, Bird, Cat, Dog

# Step 4: Write down all possibilities for the last boxes (according to the clues)

House	1	2	3	4	5
Number					
Colour	Yellow	Blue	Red	Green	White
Nationality	Norwegian	D G	Brit	<mark>S G</mark>	<mark>S D G</mark>
Smoke	Dunhill	P BM B	PM B	PM P B	PM P BM
Drink	W	T B W	Milk	Coffee	T B W
Pet	C F	Horses	C F B	C D F B	C D F B

- Note that for the drink the only option for house 1 is Water
- With this knowledge we can use the next clue: The man who smokes Blends has a neighbor who drinks water
- This again tells us that the third house smokes Pall Mall
- Which in turn tells us that the fourth house smokes Prince and Blue Master is the only one left for house 5

House	1	2	3	4	5
Number					
Colour	Yellow	Blue	Red	Green	White
Nationality	Norwegian	D G	Brit	S G	S D G
Smoke	Dunhill	<b>Blends</b>	Pall Mall	<b>Prince</b>	Blue Master
Drink	Water	T B	Milk	Coffee	T B
Pet	C F	Horses	C F B	C D F B	C D F B

- The next clue reads: The man who smokes Blue Master drinks Beer
- Thus we can fill out the drink column and conclude that house 5 drinks beer and house 2 drinks tea

House	1	2	3	4	5
Number					
Colour	Yellow	Blue	Red	Green	White
Nationality	Norwegian	D G	Brit	S G	S D G
Smoke	Dunhill	Blends	Pall Mall	Prince	Blue Master
Drink	Water	<mark>Tea</mark>	Milk	Coffee	<mark>Beer</mark>
Pet	C F	Horses	C F B	C D F B	C D F B

- The dane drinks tea. That's house nr.2
- The German smokes Prince, that's house no. 4
- This leaves house n.5 with the Swede

House	1	2	3	4	5
Number					
Colour	Yellow	Blue	Red	Green	White
Nationality	Norwegian	<mark>Dane</mark>	Brit	<mark>German</mark>	<mark>Swede</mark>
Smoke	Dunhill	Blends	Pall Mall	Prince	Blue Master
Drink	Water	Tea	Milk	Coffee	Beer
Pet	C F	Horses	C F B	C D F B	C D F B

- The swede keeps dogs as pets
- The person who smokes Pall Mall rears birds
- The man who smokes Blends lives next to the one who keeps cats

House	1	2	3	4	5
Number					
Colour	Yellow	Blue	Red	Green	White
Nationality	Norwegian	Dane	Brit	German	Swede
Smoke	Dunhill	Blends	Pall Mall	Prince	Blue Master
Drink	Water	Tea	Milk	Coffee	Beer
Pet	<b>Cats</b>	Horses	Birds .	F	Dogs

As we can see there's only one spot left for the fish. That's why we can conclude that the German keeps a fish