

Discrete Structures and Theory (Spring 2023)

Discussion 10

Date: 31/03/2023

Solve the following logic puzzle by hand using the grid provided. Then check out the video on how to do this with Prolog.

Backstory and Goal

Mary has 42 different grandchildren, and it seems like barely a week goes by when she doesn't have to send out a birthday card! Help her sort out this month's cards by matching each grandchild to his or her birthday and age. The names are Douglas, Hilda, Johanna and Kerry. The ages are 6, 9, 14 and 18. The birthdays are on the 3rd, 7th, 11th and 15th of April.

Clues

1. Douglas was born on April 15th.
2. The 9-year-old has a birthday sometime after the 18-year-old.
3. The 14-year-old has a birthday 8 days after the 6-year-old.
4. Of the one with the April 7th birthday and Hilda, one is 18 years old and the other is 6 years old.
5. Kerry was born on April 7th.
6. The one with the April 11th birthday is either the 14-year-old or the 18-year-old.

		grandchildren				ages			
		Douglas	Hilda	Johanna	Kerry	6	9	14	18
birthdays	April 3rd	X			X	✓			
	April 7th	X	X	X	✓	X	X	X	✓
	April 11th	X			X	X	X		
	April 15th	✓	X	X	X	X	X		
ages	6								
	9								
	14								
	18								