

Given a DFA denoted by the transition table shown below, and assuming that **1** is the start state and **1**, **2** and **4** are final states, fill in the equivalent states matrix I have provided. Use this to create an equivalent, minimal state DFA.

	a	b	c
<u>1</u>	6	3	2
<u>2</u>	5	3	1
3	2	4	5
<u>4</u>	5	5	1
5	5	1	5
6	5	2	6

<u>2</u>	5,6				
3	X	X			
<u>4</u>	5,6 3,5 X'' 1,2	3,5 X''	X		
5	X	X	2,5 X' 1,4	X	
6	X	X	2,5 X' 2,4 5,6	X	1,2
	<u>1</u>	<u>2</u>	3	<u>4</u>	5

Don't forget to construct and write down your new, equivalent automaton!! Be sure to clearly mark your start state and your final state(s). Note X is for immediate incompatibility; X' is because of an immediate one; X'' is because of an X'.

