Using Decision Tables for Functional Testing

Template for Decision Table

Stub	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6
c1	Т	Т	Т	F	-	Т
c2	F	Т	Т	Т	-	Т
c3	Т	Т	-	Т	Т	Т
c4	Т	F	F	Т	Т	Т
a1	X	X		X	X	X
a2		X				
a3	X			X		
a4			X			X

Triangle Problem

Trange Troblem											
c1: a <b+c?< td=""><td>F</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>T</td><td>Т</td><td>Т</td></b+c?<>	F	Т	Т	Т	Т	Т	Т	Т	T	Т	Т
c2: b <a+c?< td=""><td>-</td><td>F</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td></a+c?<>	-	F	Т	Т	Т	Т	Т	Т	Т	Т	Т
c3: c <a+b?< td=""><td>-</td><td>-</td><td>F</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td></a+b?<>	-	-	F	Т	Т	Т	Т	Т	Т	Т	Т
c4: a = b?	-	-	-	Т	Т	Т	Т	F	F	F	F
c5: a = c?	-	-	-	Т	Т	F	F	Т	Т	F	F
c6: b = c?	-	-	-	Т	F	Т	F	Т	F	Т	F
a1: Not a Triangle	Х	Х	Х								
a2: Scalene											X
a3: Isosceles							X		X	X	
a4: Equilateral				Х							
a5: Impossible					Х	X		Х			
as. Impossible					^			^			

With "Rule Counts"

c1: a <b+c?< td=""><td>F</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td></b+c?<>	F	Т	Т	Т	Т	Т	Т	Т	Т	Т	Т
c2: b <a+c?< td=""><td>-</td><td>F</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>Т</td><td>T</td><td>Т</td></a+c?<>	-	F	Т	Т	Т	Т	Т	Т	Т	T	Т
c3: c <a+b?< td=""><td>-</td><td>-</td><td>F</td><td>T</td><td>T</td><td>Т</td><td>T</td><td>T</td><td>T</td><td>T</td><td>Т</td></a+b?<>	-	-	F	T	T	Т	T	T	T	T	Т
c4: a = b?	-	-	-	T	T	T	T	F	F	F	F
c5: a = c?	-	-	-	T	T	F	F	T	T	F	F
c6: b = c?	-	-	-	T	F	T	F	T	F	T	F
Rule Count	32	16	8	1	1	1	1	1	1	1	1
Rule Count a1: Not a Triangle	32 X	16 X	8 X	1	1	1	1	1	1	1	1
	-	_	_	1	1	1	1	1	1	1	1 X
a1: Not a Triangle	-	_	_	1	1	1	1 X	1	1 X	1 X	1 X
a1: Not a Triangle a2: Scalene	-	_	_	1 X	1	1	1 X	1	1 X	1 X	1 X

Final Decision Table

c1: a,b,c form a triangle?	Ν	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
c2: a = b?	-	Υ	Υ	Υ	Υ	N	N	N	N
c3: a = c?	-	Υ	Υ	N	N	Υ	Υ	N	N
c4: b = c?	-	Υ	N	Υ	N	Υ	N	Υ	N
a1: Not a Triangle	Х								
a2: Scalene									Χ
a3: Isosceles					Х		Χ	Х	
a4: Equilateral		Х							
a5: Impossible			Х	Х		Х			

Reference: Ferriday, Cai, "A Review Paper on Decision Table-Based Testing" http://cs.swan.ac.uk/~csmarkus/CS339/dissertations/FerridayC.pdf