Step 1: Truth Table for (a || b) && c

Test Case	a	b	c	Outcome	notes
1	TRUE	FALSE	TRUE	TRUE	a &&c = true
2	TRUE	TRUE	TRUE	TRUE	a&&b&&c = true
3	TRUE	FALSE	FALSE	FALSE	a only = false
4	TRUE	TRUE	FALSE	FALSE	a&&b but not c == false
5	FALSE	TRUE	TRUE	TRUE	b&&c = true
6	FALSE	FALSE	FALSE	FALSE	none = false
7	FALSE	TRUE	FALSE	FALSE	b only = false
8	FALSE	FALSE	TRUE	FALSE	c only = false

Step 2: select important test cases based on MC/DC criteria.

1. Find test cases that the value of condition a decidse the value of the outcome, but conditions b, c are same:

Test Case	a	b	c	Outcome	notes
1	TRUE	FALSE	TRUE	TRUE	a &&c = true
3	TRUE	FALSE	FALSE	FALSE	a only = false
5	FALSE	TRUE	TRUE	TRUE	b&&c = true

2. Find test cases tha the value of condition b decides the value of the outcome, but conditions a, c are th esame:

Test Case	a	b	c	Outcome	notes
2	TRUE	TRUE	TRUE	TRUE	a&&b&&c = true
7	FALSE	TRUE	FALSE	FALSE	b only = false

3. Find test cases that the value of condition c decides the value of the outcome, but conditions a, b are the same:

Test Case	a	b	c	Outcome	notes
2	TRUE	TRUE	TRUE	TRUE	a&&b&&c = true
8	FALSE	FALSE	TRUE	FALSE	c only = false

Step 3: test cases:

Test case #1:

input: a = true, b = false, c = true;
output = true

Test case #2:

input: a = true, b = false, c = false;
output = false

Test case #3:

input: a = false, b = true, c = true;
output = true

Test case #4:

input: a = true, b = true, c = true;
output = true

Test case #5:

input: a = false, b = true, c = false;
output = false

Test case #6:

input = a = false, b = false, c = true;
ouput = false