

# Test Cases For Next Day Calculator

At first, the domain of input in terms of valid input values and invalid values are partitioned. We get the following classes:

$$I_1 = \{ \langle m, d, y \rangle : 1 \leq m \leq 12 \}$$

$$I_2 = \{ \langle m, d, y \rangle : 1 \leq d \leq 31 \}$$

$$I_3 = \{ \langle m, d, y \rangle : 1900 \leq y \leq 2050 \}$$

$$I_4 = \{ \langle m, d, y \rangle : m < 1 \}$$

$$I_5 = \{ \langle m, d, y \rangle : m > 12 \}$$

$$I_6 = \{ \langle m, d, y \rangle : d < 1 \}$$

$$I_7 = \{ \langle m, d, y \rangle : d > 31 \}$$

$$I_8 = \{ \langle m, d, y \rangle : y < 1900 \}$$

$$I_9 = \{ \langle m, d, y \rangle : y > 2050 \}$$

The test cases are shown in the table below.

ID	Assert values			Expected Result	Actual Result	Remarks
	d	m	y			
1	28	2	2004	29/2/2004	29/2/2004	Correct
2	28	2	2007	1/3/2007	1/3/2007	Correct
3	31	12	2018	1/1/2019	1/1/2019	Correct
4	28	2	1900	1/3/2019	1/3/2019	Correct
5	30	6	1962	1/7/1962	1/7/1962	Correct
6	31	6	1962	Invalid input	Invalid input	Correct
7	15	0	2007	Invalid date	Invalid date	Correct
8	13	15	1998	Invalid date	Invalid date	Correct
9	31	11	2018	Invalid date	Invalid date	Correct
10	30	6	2024	1/7/2024	1/7/2024	Correct
11	2	11	1900	3/11/1900	3/11/1900	Correct
12	29	2	2200	Invalid date	Invalid date	Correct