

Example Test Plan for CC_Validation.asm

(complete a table like this for all SIX Credit Card Numbers)

Credit Card Number	AddEven Subroutine	AddOdd Subroutine	Validate Subroutine
9843	First Digit: 9 Second Digit:4 $9 \times 2 = 18$ MSB= 1 LSB=8 Sum =9 $4 \times 2 = 8$ Returns Sum of Even Digits: 17	First Digit:8 Second Digit:3 Returns Sum of Odd Digits: 11	AddEven Sum:17 AddOdd Sum:11 Sum:28 Remainder of $28 / 10 = 8$ Returns INVALID
1248	First Digit: 1 Second Digit:4 $1 \times 2 = 2$ $4 \times 2 = 8$ Returns Sum of Even Digits: 10	First Digit:2 Second Digit:8 Returns Sum of Odd Digits: 10	AddEven Sum:10 AddOdd Sum:10 Sum:20 Remainder of $20 / 10 = 0$ Returns VALID
8268	First Digit: 8 Second Digit:6 $8 \times 2 = 16$ MSB= 1 LSB=6 Sum =7 $6 \times 2 = 12$ MSB= 1 LSB=2 Sum=3 Returns Sum of Even Digits: 10	First Digit:2 Second Digit:8 Returns Sum of Odd Digits: 10	AddEven Sum:10 AddOdd Sum:10 Sum:20 Remainder of $20 / 10 = 0$ Returns VALID
3202	First Digit: 3 Second Digit: 0 $3 \times 2 = 6$ $0 \times 2 = 0$ Returns Sum of Even Digits: 6	First Digit:2 Second Digit:2 Sum: 4	AddEven Sum:6 AddOdd Sum:4 Sum:10 Remainder of $10 / 10 = 0$ Returns VALID

Notes:

Example Results (AFTER ALL SIX Credit Card Numbers have been validated):

VALID= 4

INVALID=2

Hex_Display Output (AFTER ALL SIX Credit Card Numbers have been validated):

4

2

