|  |  |  |  |
| --- | --- | --- | --- |
| Credit Card Number | **AddOdd**  Subroutine | **AddEven**  Subroutine | **Validate**  Subroutine |
| 1115 | First digit: 1  1x2=2  Second digit: 1  1x2=2  Return sum of odd digits = 4 | First Digit: 1  Second digit: 5  Return sum of even digits = 6 | AddOdd Sum: 4  AddEven Sum: 6  Sum: 10  Remainder of 10 / 10 = 0  Returns VALID |
| 7633 | First digit: 7  7x2 = 14  Sum = 5  Second digit: 3  3x2=6  Return sum of odd digits = 11 | First digit: 6  Second digit: 3  Return sum of even digits = 9 | AddOdd Sum: 11  AddEven Sum: 9  Sum: 20  Remainder of 20 / 10 = 0  Returns VALID |
| 8877 | First digit: 8  8x2 = 16  Sum = 7  Second digit: 7  7x2 = 14  Sum = 5  Return sum of odd digits = 12 | First digit: 8  Second digit: 7  Return sum of even digits = 15 | AddOdd Sum: 12  AddEven Sum: 15  Sum: 27  Remainder of 27 / 10 = 7  Returns INVALID |
| 7781 | First digit: 7  7x2 = 14  Sum = 5  Second digit: 8  8x2 = 16  Sum = 7  Return sum of odd digits = 12 | First digit: 7  Second digit: 1  Return sum of even digits = 8 | AddOdd Sum: 12  AddEven Sum: 8  Sum: 20  Remainder of 20 / 10 = 0  Returns VALID |
| 9803 | First digit: 9  9x2 = 18  Sum = 9  Second digit: 0  0x2 = 0  Return sum of odd digits = 9 | First digit: 8  Second digit: 3  Return sum of even digits = 11 | AddOdd Sum: 9  AddEven Sum: 11  Sum: 20  Remainder of 20 / 10 = 0  Returns VALID |
| 6502 | First digit: 6  6x2 = 12  Sum = 3  Second digit: 0  0x2 = 0  Return sum of odd digits = 3 | First digit: 5  Second digit: 2  Return sum of even digits = 7 | AddOdd Sum: 3  AddEven Sum: 7  Sum: 10  Remainder of 10 / 10 = 0  Returns VALID |

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

VALID = 5 INVALID = 1