**DECIMAL NUMBER CONVERSION**

**TO**

**ROMAN NUMERALS**

**Roman Numerals:**

**I V X L C D M**

**Decimal Digits:**

**1 5 10 50 100 500 1000**

**Difficult Numbers:**

**4 9 40 90 400 900**

**Conversion Chart:**

**5**

**V**

**DECIMAL NUMBER**

**ROMAN NUMERAL**

**10**

**X**

**50**

**L**

**100**

**C**

**1**

**I**

**500**

**D**

**1000**

**M**

**4**

**IV**

**6**

**VI**

**9**

**IX**

**11**

**XI**

**40**

**XL**

**60**

**LX**

**90**

**XC**

**110**

**CX**

**400**

**CD**

**600**

**DC**

**TEMPORARY CHARACTER**

**-**

**-**

**-**

**-**

**-**

**-**

**-**

**E**

**-**

**F**

**-**

**G**

**-**

**H**

**-**

**J**

**-**

**K**

**900**

**CM**

**char romanchars [] = {'M', 'K', 'D', 'J', 'C', 'H', 'L', 'G', 'X', 'F',**

**'V', 'E', 'I'};**

**int decimaldivs[] = {1000, 900, 500, 400, 100, 90, 50, 40, 10, 9, 5, 4, 1};**

**char romannumrs [13];**

**Input decimal number: 789**

789 / 1000 = 0

789 / 900 = 0

789 / 500 = 1

**789 - 500 \* 1 = 289**

**Roman char: D**

**Replace the temporary char D with**

289 / 400 = 0

289 / 100 = 2

**289 - 100 \* 2 = 89**

**Roman char: C**

**Roman char: C**

89 / 90 = 0

89 / 50 = 1

**89 - 50 \* 1 = 39**

**Roman char: L**

39 / 40 = 0

39 / 10 = 3

**39 - 10 \* 3 = 9**

**Roman char: X**

**Roman char: X**

**Roman char: X**

9 / 9 = 1

**9 - 9 \* 1 = 0**

**Roman char: F**

0 / 5 = 0

0 / 4 = 0

0 / 1 = 0

**Decimal number: 789, equivalent roman numerals: DCCLXXXIX**