

Lesson-2 : Roman Numerals

Exercise-1

1.	Hindu-Arabic numerals	12	23	28	31
	Roman numerals	XII	XXIII	XXVIII	XXXI
2.	Roman numerals	VI	XIII	XXIV	XXXV
	Hindu-Arabic numerals	6	13	24	35

Exercise-2

1. (a) $95 = 90 + 5 = \text{XCV}$
(b) $130 = 100 + 30 = \text{CXXX}$
(c) $163 = 100 + 60 + 3 = \text{CLXIII}$
(d) $212 = 200 + 10 + 2 = \text{CCXII}$
(e) $289 = 200 + 80 + 9 = \text{CCLXXXIX}$
(f) $334 = 300 + 30 + 4 = \text{CCCXXXIV}$
(g) $467 = 400 + 60 + 7 = \text{CDLXVII}$
(h) $579 = 500 + 70 + 9 = \text{DLXXIX}$
(i) $938 = 900 + 30 + 8 = \text{CMXXXVIII}$
(j) $856 = 800 + 50 + 6 = \text{DCCCLVI}$
2. (a) $\text{XLIII} = \text{XL} + \text{III} = 40 + 3 = 43$
(b) $\text{LXIX} = \text{LX} + \text{IX} = 60 + 9 = 69$
(c) $\text{CXXXV} = \text{C} + \text{XXX} + \text{V} = 100 + 30 + 5 = 135$
(d) $\text{CLXII} = \text{C} + \text{LX} + \text{II} = 100 + 60 + 2 = 162$
(e) $\text{CXC} = \text{C} + \text{XC} = 100 + 90 = 190$
(f) $\text{CCXXII} = \text{CC} + \text{XX} + \text{II} = 200 + 20 + 2 = 222$
(g) $\text{CCLXXXII} = \text{CC} + \text{LXXX} + \text{II} = 200 + 80 + 2 = 282$
(h) $\text{DXIII} = \text{D} + \text{X} + \text{III} = 500 + 10 + 3 = 513$
(i) $\text{DCCCXCIX} = \text{DCCC} + \text{XC} + \text{IX} = 800 + 90 + 9 = 899$
(j) $\text{DCCLXII} = \text{DCC} + \text{LX} + \text{II} = 700 + 60 + 2 = 762$

3. • VVV is incorrect as V is never repeated to form a Roman numeral.
 • DDD is incorrect as D is never repeated to form a Roman numeral.
 • IL is incorrect as I is never written to the left of L.
 • VVI is incorrect as V is never repeated to form a Roman numeral.
 • DDX is incorrect as D is never repeated to form a Roman numeral.

Mental Maths Corner

1. (a) (ii) (b) (iii) (c) (iii)
 2. (a) < (b) < (c) = (d) > (e) > (f) >

Review Exercise

1. (a) $L - IX = 50 - 9 = 41 = 40 + 1 = XLI$
 (b) $XLII + XXIX = 42 + 29 = 71 = 70 + 1 = LXXI$
 (c) $XC - XXI = 90 - 21 = 69 = 60 + 9 = LXIX$
 (d) $DL + CC = 550 + 200 = 750 = 700 + 50 = DCCL$
 (e) $M - DXVI = 1000 - 516 = 484 = 400 + 80 + 4 = CDLXXXIV$
 (f) $CM + LX = 900 + 60 = 960 = CMLX$

2.

604	CCII
118	CCCLXVI
202	DXLV
457	DCIV
189	CXVIII
366	CLXXXIX
545	CDLVII

3. $264 = 200 + 60 + 4 = CC + LX + IV = CCLXIV$

Brain Teaser

Arranging the Roman numerals in descending order of their numerical values, we get C, L, X, V, I.

So, the greatest number is CLXVI.

Activity

$$\begin{array}{lcl}
 LXIX + VI = LXXV & \rightarrow & LXIX - VI = LXIII \\
 XXIII - X = XIII & \rightarrow & XXII + X = XXXII \\
 XLVI - IV = XLII & \rightarrow & XLVI + V = LI \\
 LX + IV = LIV & \rightarrow & LX - IV = LVI \\
 LX + XI = LXXI & \rightarrow & LIX + X = LXXIX
 \end{array}$$