

1. (a)  $\text{VII} = 7$
- (b)  $\text{XXXIII} = 33$
- (c)  $\text{I XL} = 1 \cdot 60 + 21 \cdot 1 = 81$
- (d)  $\text{III XLVI} = 3 \cdot 60 + 46 \cdot 1 = 180 + 46 = 226$
- (e)  $\text{I I XLVIII} = 1 \cdot 3600 + 1 \cdot 60 + 18 = 3678$
2. (a)  $29 = \text{XXIX}$
- (b)  $94 = 1 \cdot 60 + 39 \cdot 1 = \text{I XXXIX}$
- (c)  $601 = 10 \cdot 60 + 1 \cdot 1 = \text{X I}$
- (d)  $3600 = 1 \cdot 3600 = \text{I}$
- (e)  $7503 = 2 \cdot 3600 + 5 \cdot 60 + 3 \cdot 1 = \text{II V III}$
3. (a)  $\text{XLVIII} + \text{XLIII} = \text{XCII} \quad (32)$
- (b)  $\text{I XLVIII} - \text{XLIII} = \text{V} \quad (25)$
- (c)  $\text{II} \times \text{XXIV} = \text{XLVIII} \quad (48)$
- (d)  $\text{XLIII} \llcorner : \text{XXII} = \text{II} \quad (2)$

4. (a)  $\text{XXXII} = 30 + 2 = 32$   
(b)  $\text{LXI} = 50 + 10 + 1 = 61$   
(c)  $\text{XC} = 100 - 10 = 90$   
(d)  $\text{XLIX} = (50 - 10) + (10 - 1) = 49$   
(e)  $\text{CIV} = 100 + (5 - 1) = 104$   
(f)  $\text{DCLXXVII} = 500 + 100 + 50 + 20 + 5 + 2 = 677$   
(g)  $\text{MMVII} = 1000 + 1000 + 5 + 2 = 2007$   
(h)  $\text{CMLXXXIX} = (1000 - 100) + 50 + 30 + (10 - 1) = 989$
5. (a)  $87 = 50 + 30 + 5 + 2 = \text{LXXXVII}$   
(b)  $48 = (50 - 10) + 5 + 3 = \text{XLVIII}$   
(c)  $256 = 200 + 50 + 5 + 1 = \text{CCLVI}$   
(d)  $1914 = 1000 + (1000 - 100) + 10 + (5 - 1) = \text{MCMXIV}$   
(e)  $1589 = 1000 + 500 + 50 + 30 + (10 - 1) = \text{MDLXXXIX}$   
(f)  $1291 = 1000 + 200 + (100 - 10) + 1 = \text{MCCXCI}$   
(g)  $449 = (500 - 100) + (50 - 10) + (10 - 1) = \text{CDXLIX}$   
(h)  $3333 = 3000 + 300 + 30 + 3 = \text{MMMCCCXXXIII}$