

ط	ح	ز	و	ه	د	ج	ب	ا
T	H	Z	W	H	D	G	B	A
9	8	7	6	5	4	3	2	1
ص	ف	ع	س	ن	م	ل	ك	ي
S	C	F	S	N	M	L	K	I
90	80	70	60	50	40	30	20	10
ظ	ض	ذ	خ	ث	ت	ش	ر	ق
Z	D	X	Kh	Th	T	Sh	R	Q
900	800	700	600	500	400	300	200	100
غ								
Gh								
1000								

Zero is
ع or 0

A KD is 84
1 20+4

LBN is
32 50/60
(Base 60)

Fig. 2.8

Base 60 needed for astronomy

	18	17	16	15	14	13	
	ح	ب	ل	د	ك	ا	العدد
	ح	ب	ل	د	ك	ا	1
	ح	ب	ل	د	ك	ا	2
	ح	ب	ل	د	ك	ا	3
4 × 18 = 12, 1 →	ح	ب	ل	د	ك	ا	4 ← 4 × 15 = 0, 1
	ح	ب	ل	د	ك	ا	5 ← 5 × 14 = 10, 1
	ح	ب	ل	د	ك	ا	6 ← 6 × 13 = 18, 1
	ح	ب	ل	د	ك	ا	7
	ح	ب	ل	د	ك	ا	8 ← 8 × 5 = 0, 2
	ح	ب	ل	د	ك	ا	9
10 × 18 = 0, 3 →	ح	ب	ل	د	ك	ا	10
	ح	ب	ل	د	ك	ا	11
	ح	ب	ل	د	ك	ا	12 ← 12 × 16 = 12, 3

Plate 2.1. Part of a sexagesimal multiplication table. The right-most column is headed "the number" and shows the alphabetic numerals from 1 to 12. The succeeding columns (from right to left, as in Arabic handwriting) are headed by the numerals 13, 14, ..., 18 and the entries underneath them give their multiples expressed as two-place sexagesimals. (See Fig. 2.12 for a transliteration and translation of the right-most three columns of this table.) (Photo courtesy of the Egyptian National Library.)

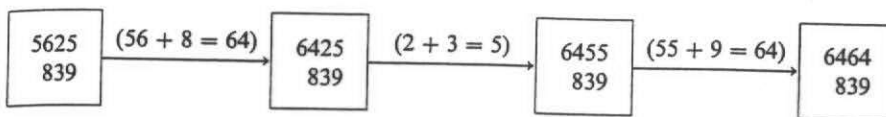


Fig. 2.1 (addition)

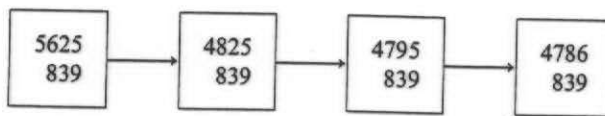


Fig. 2.2 (subtraction)

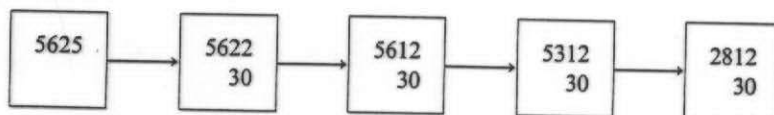


Fig. 2.3 (halving)

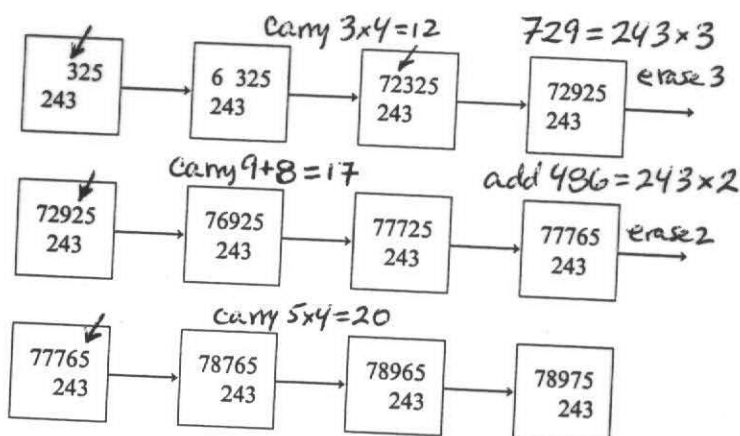
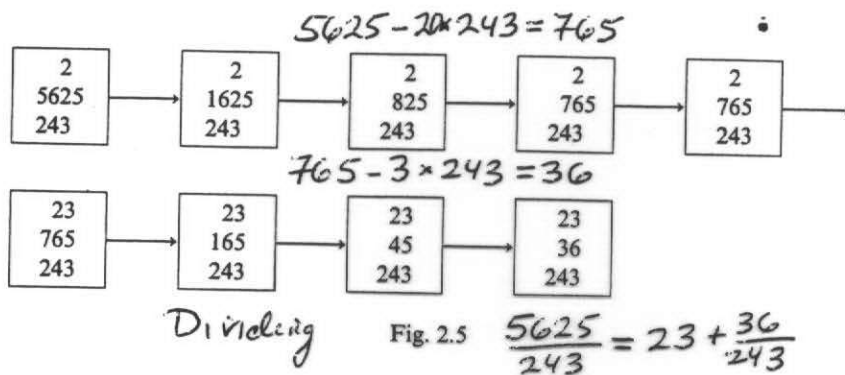


Fig. 2.4 multiply 243×325



Dividing Fig. 2.5 $\frac{5625}{243} = 23 + \frac{36}{243}$