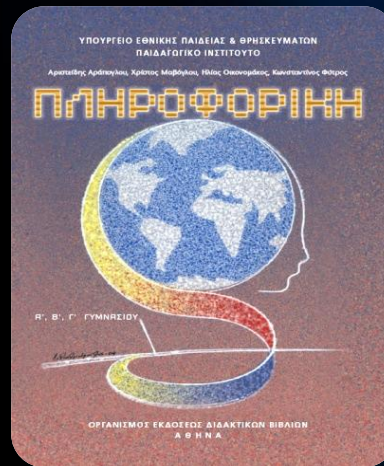




Η ΙΣΤΟΡΙΑ ΤΩΝ ΥΠΟΛΟΓΙΣΤΩΝ

ΚΕΦ. 4



ΕΥΑΓΓΕΛΟΣ Χ. ΖΙΟΥΛΑΣ (ΚΑΘΗΓΗΤΗΣ ΠΛΗΡΟΦΟΡΙΚΗΣ)

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ



ΠΡΩΤΕΣ ΑΥΤΟΜΑΤΕΣ ΜΗΧΑΝΕΣ

ΥΠΟΛΟΓΙΣΤΙΚΕΣ ΜΗΧΑΝΕΣ

ΜΗΧΑΝΙΚΟΙ ΥΠΟΛΟΓΙΣΤΕΣ

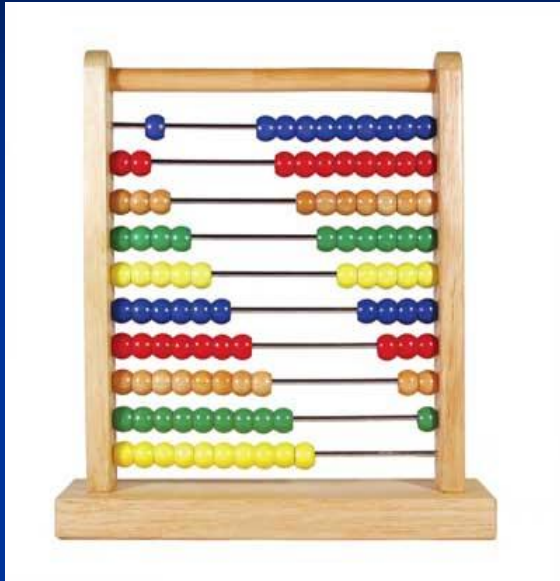
ΗΛΕΚΤΡΟΜΗΧΑΝΙΚΟΙ ΥΠΟΛΟΓΙΣΤΕΣ

ΛΥΧΝΙΕΣ ΚΕΝΟΥ

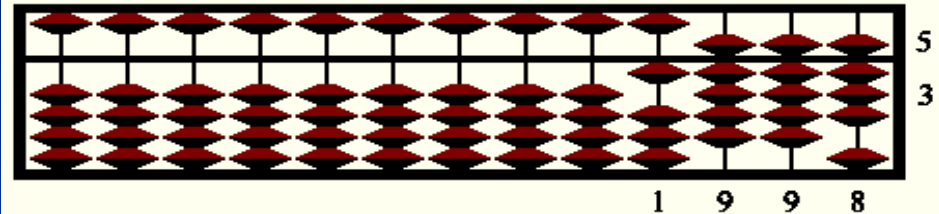
ΤΡΑΝΣΙΣΤΟΡΣ

ΟΛΟΚΛΗΡΩΜΕΝΑ ΚΥΚΛΩΜΑΤΑ

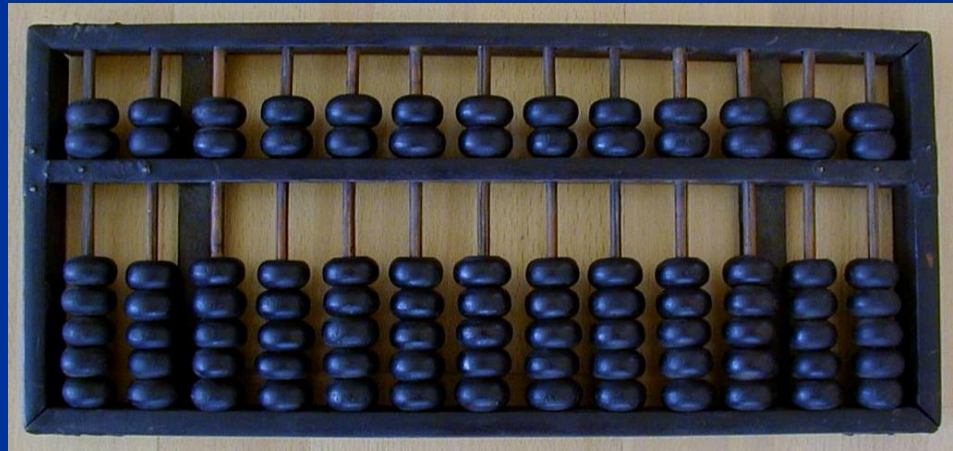
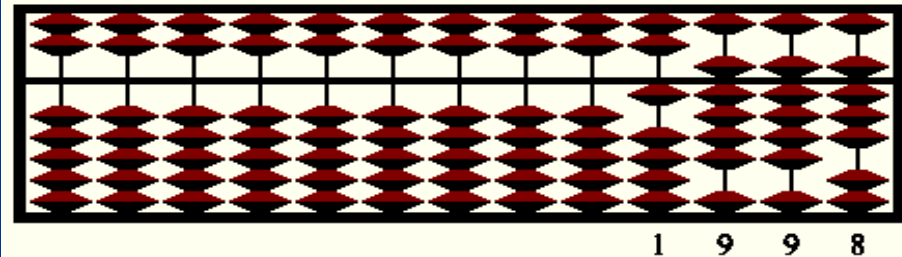
ΑΒΑΚΑΣ



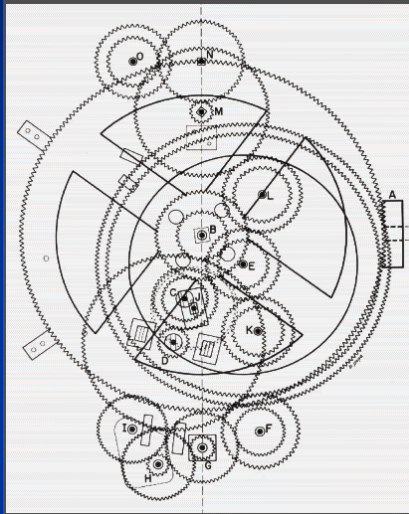
Japanese Abacus (Soroban)



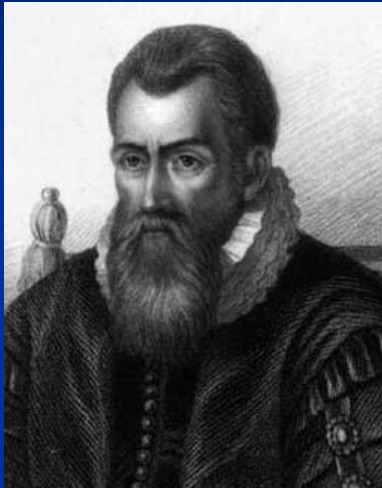
Chinese Abacus



ΜΗΧΑΝΙΣΜΟΣ ΑΝΤΙΚΥΘΗΡΩΝ



ΚΟΚΚΑΛΑ ΝΕΠΕΡ (1617)



$$7 \times 1 =$$

7

$$7 \times 2 =$$

14

$$7 \times 3 =$$

21

$$7 \times 4 =$$

28

$$7 \times 5 =$$

35

$$7 \times 6 =$$

42

$$7 \times 7 =$$

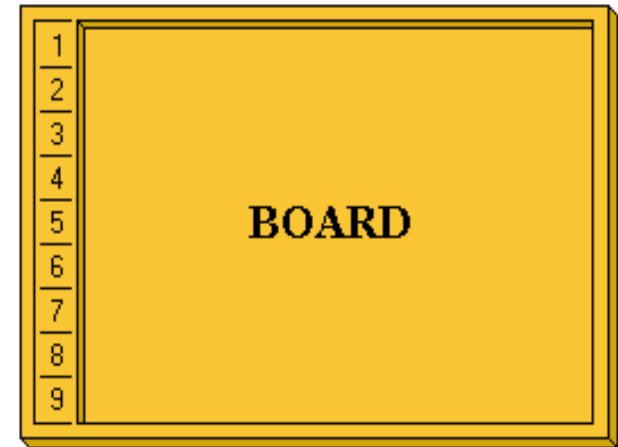
49

$$7 \times 8 =$$

56

$$7 \times 9 =$$

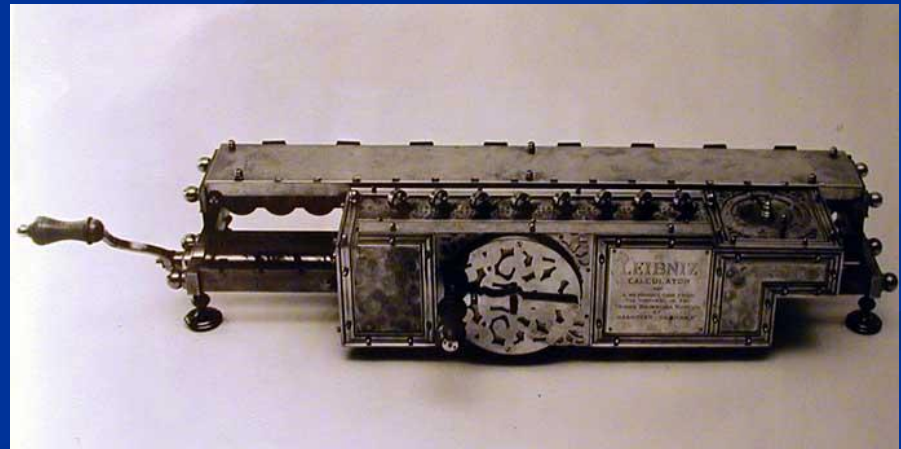
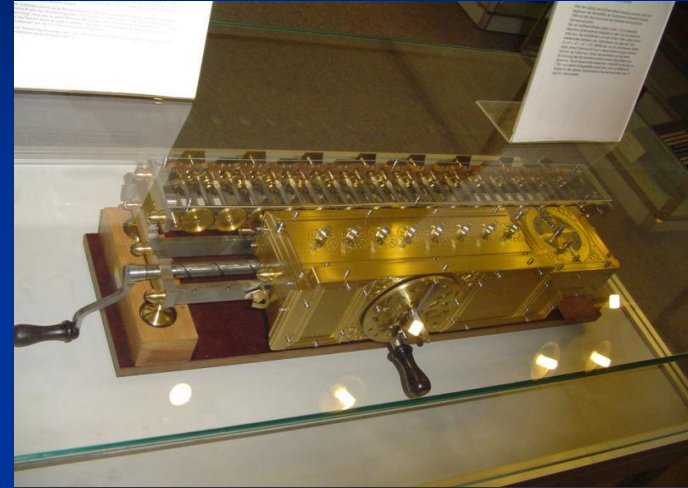
63



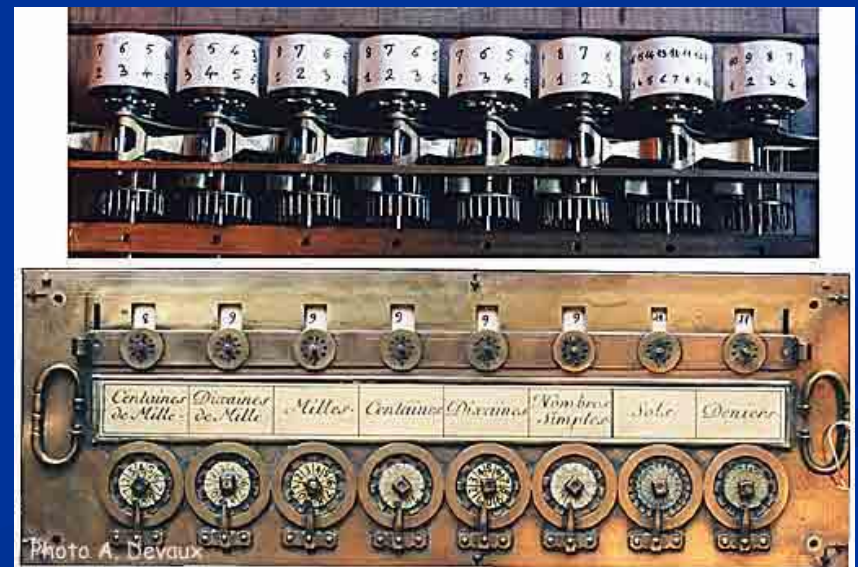
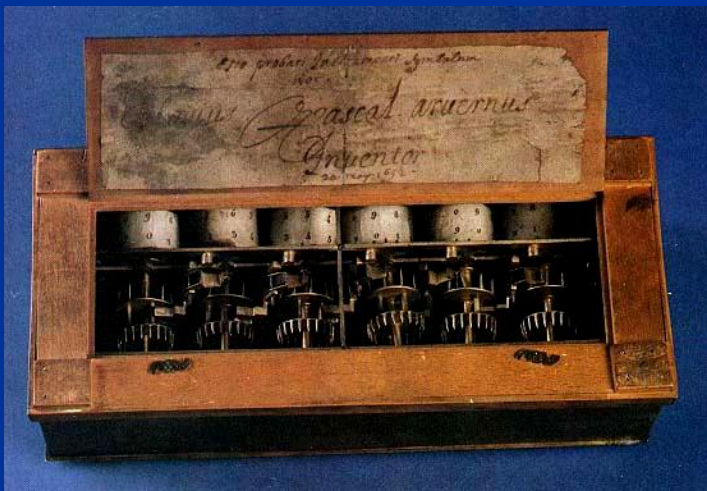
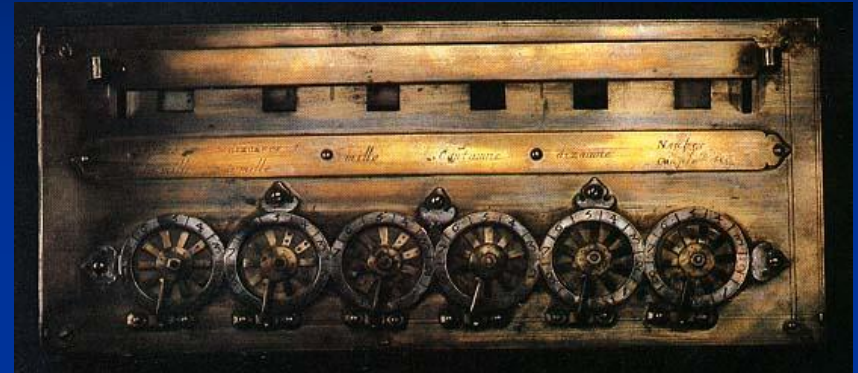
1	2	3	4	5	6	7	8	9	0
01	02	03	04	05	06	07	08	09	00
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

SET OF RODS

VON LEIBNIZ (1671)



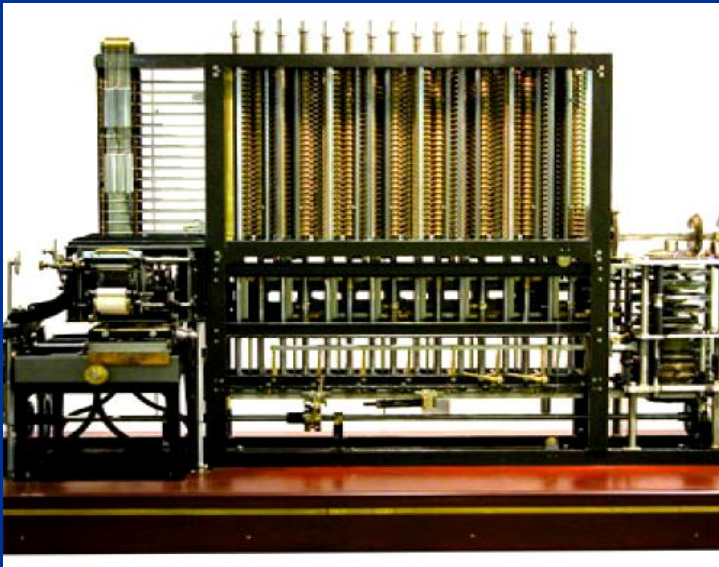
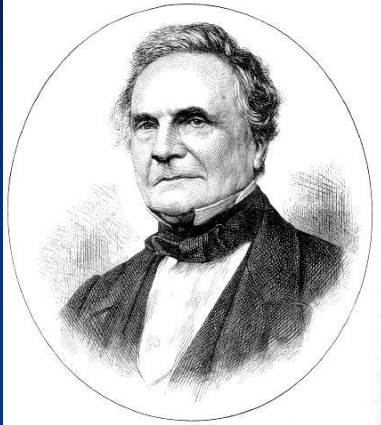
PASCAL (1642)



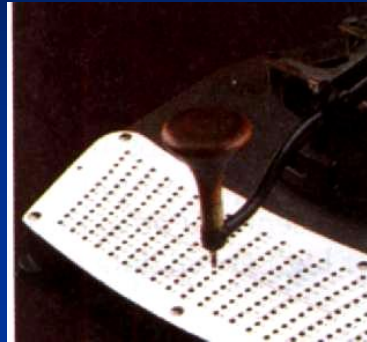
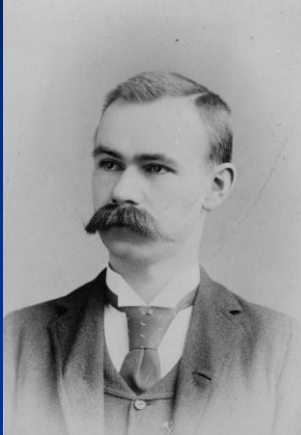
JACQUARD (1801)



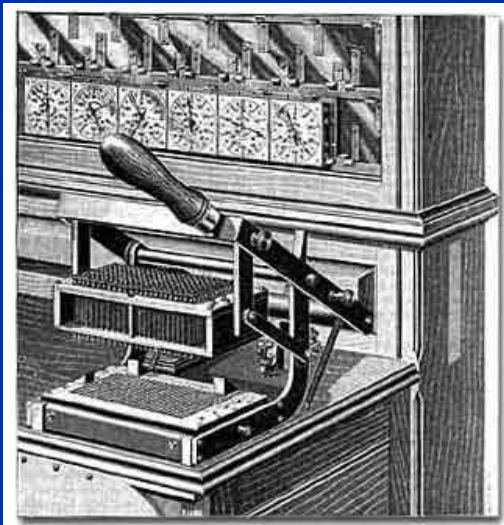
BABBAGE (1821)



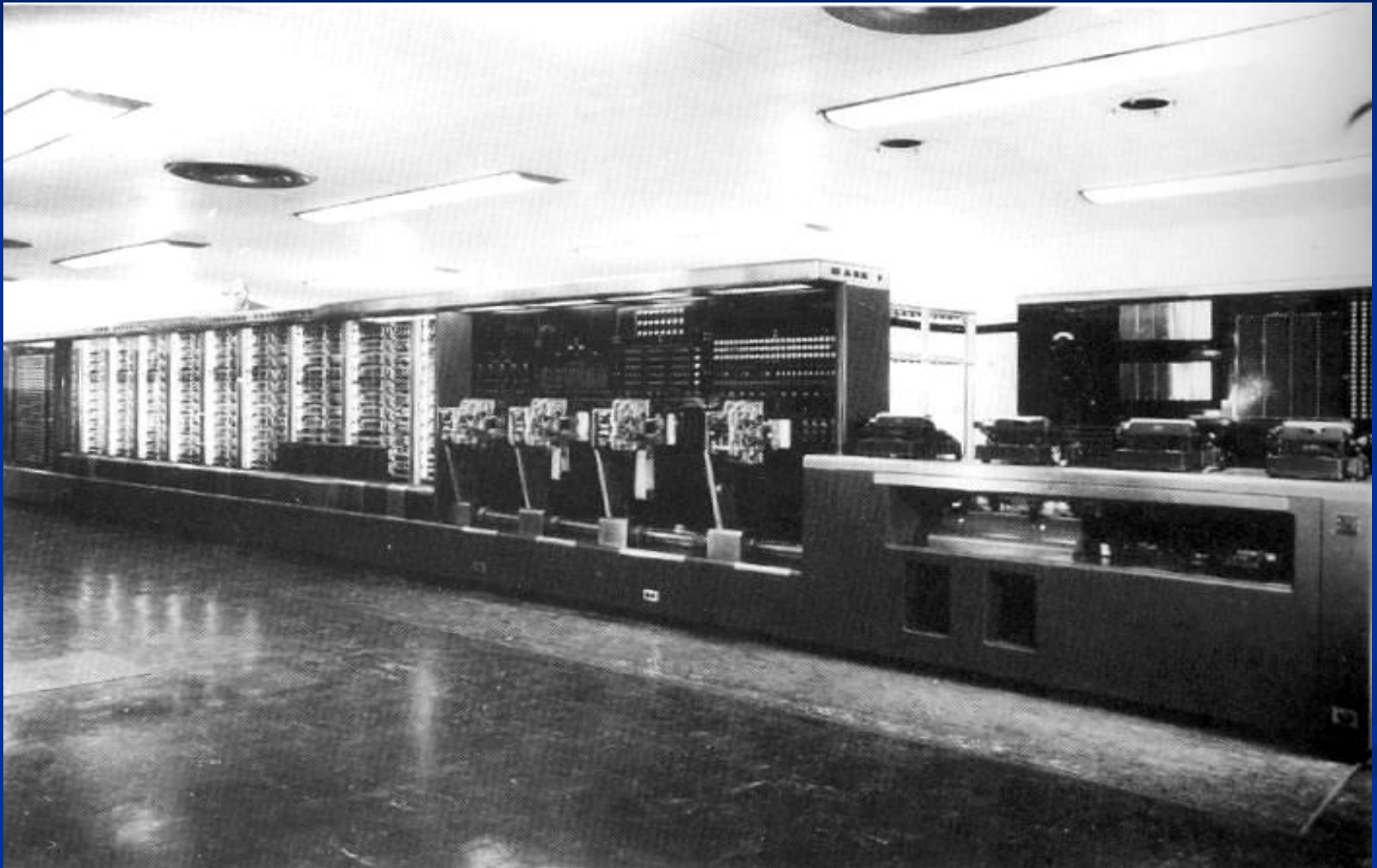
HOLLERITH (1890)



1	1	3	0	2	4	10	On	8	A	C	E	a	o	e	c		ED	SB	Ch	Sy	U	Sh	Hk	Dr	Rm
2	2	4	1	3	5	15	Off	15	D	D	F	b	d	f	h		SY	X	Sp	Cn	R	X	Al	Cg	Kg
3	0	0	0	0	W	20		0	0	0	U	0	0	0	0		0	0	0	0	0	0	0	0	0
A	1	1	1	1	0	25	A	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1
B	2	2	2	2	5	30	B	2	2	2	2	2	2	2	2		2	2	2	2	2	2	2	2	2
C	3	3	3	3	0	35	C	3	3	3	3	3	3	3	3		3	3	3	3	3	3	3	3	3
D	4	4	4	4	1	40	D	4	4	4	4	4	4	4	4		4	4	4	4	4	4	4	4	4
E	5	5	5	5	2	45	E	5	5	5	5	5	5	5	5		5	5	5	5	5	5	5	5	5
F	6	6	6	6	A	50	F	6	6	6	6	6	6	6	6		6	6	6	6	6	6	6	6	6
G	7	7	7	7	B	55	G	7	7	7	7	7	7	7	7		7	7	7	7	7	7	7	7	7
H	8	8	8	8	C	60	H	8	8	8	8	8	8	8	8		8	8	8	8	8	8	8	8	8
I	9	9	9	9	D	65	I	9	9	9	9	9	9	9	9		9	9	9	9	9	9	9	9	9



MARK 1 (1944)

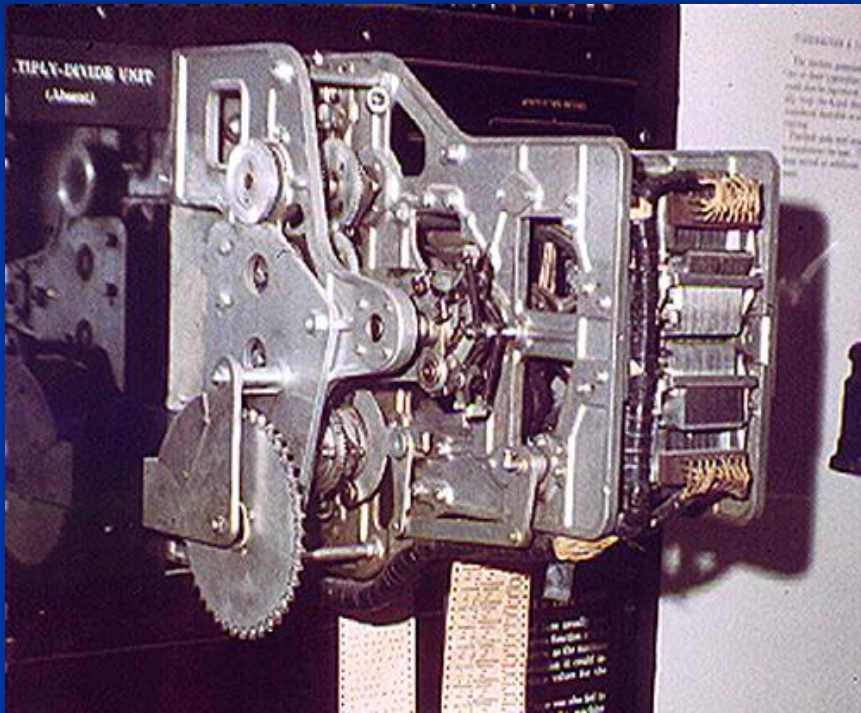


MARK 1

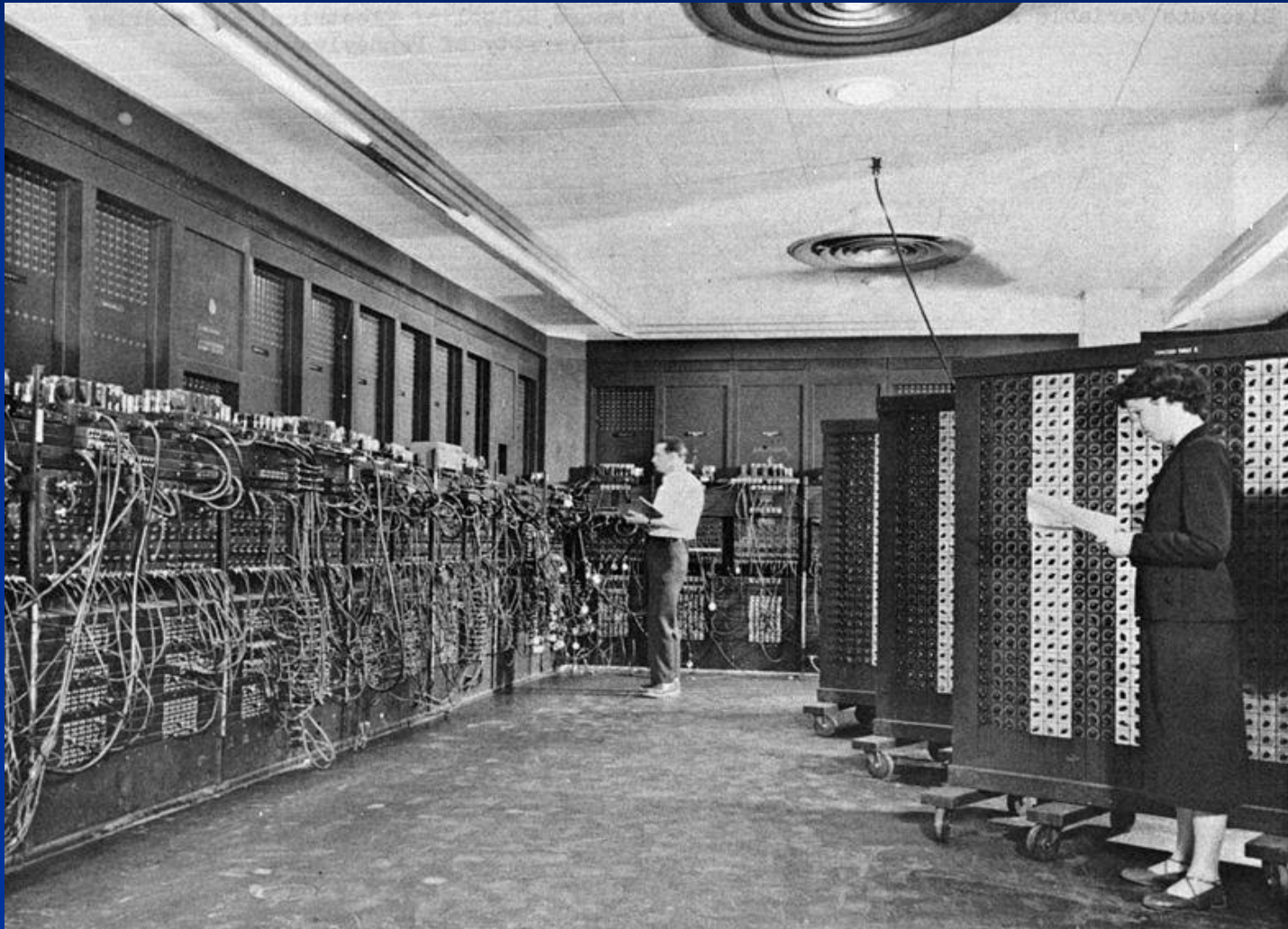


The Harvard Mark I

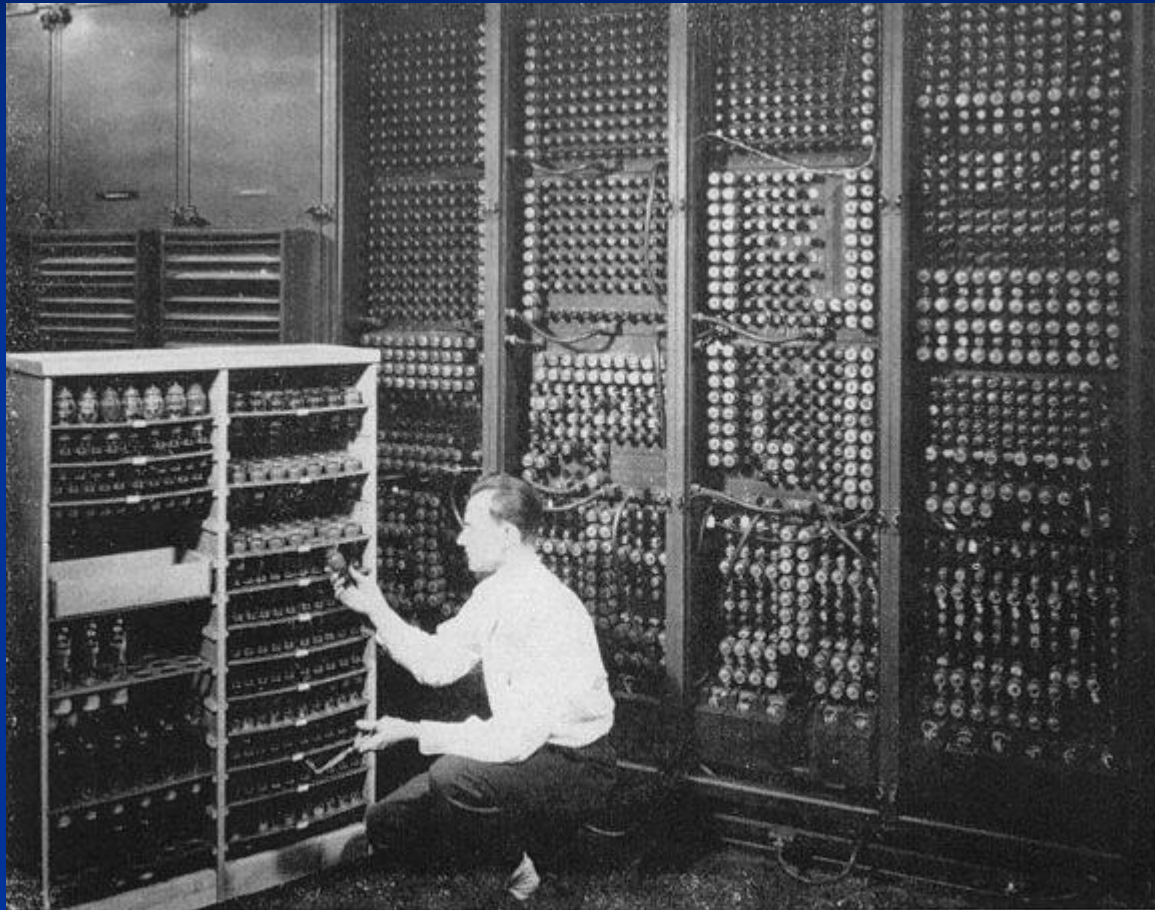
MARK 1



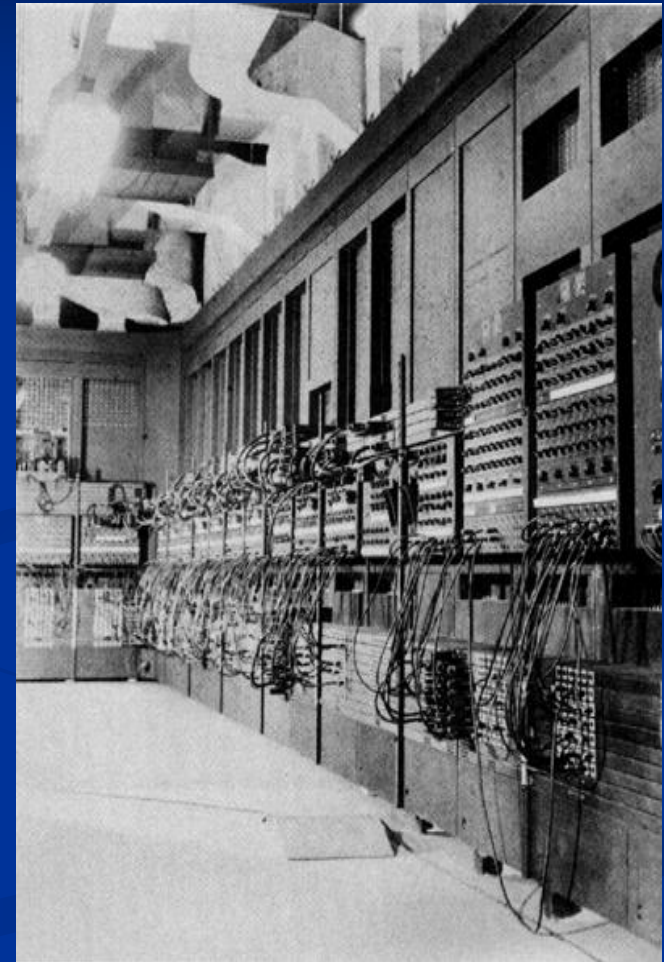
ENIAC (1946)



ENIAC (1946)



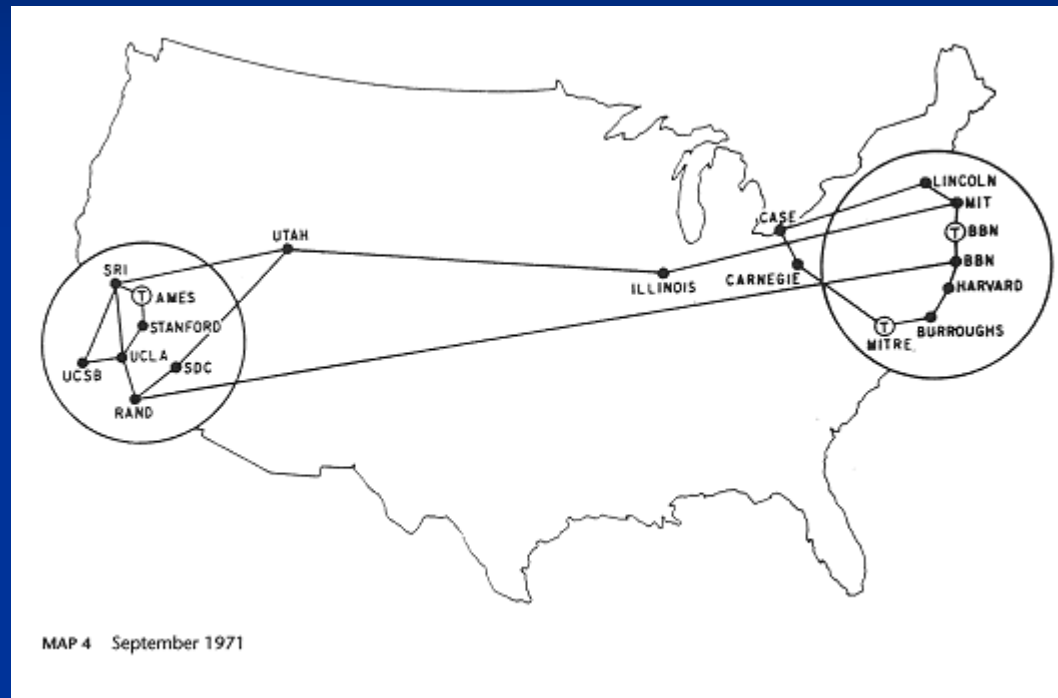
Replacing a bad tube meant checking among ENIAC's 19,000 possibilities.



ENIAC (1946)



ARPANET (1969)



APPLE (1976)



IBM PC (1981)



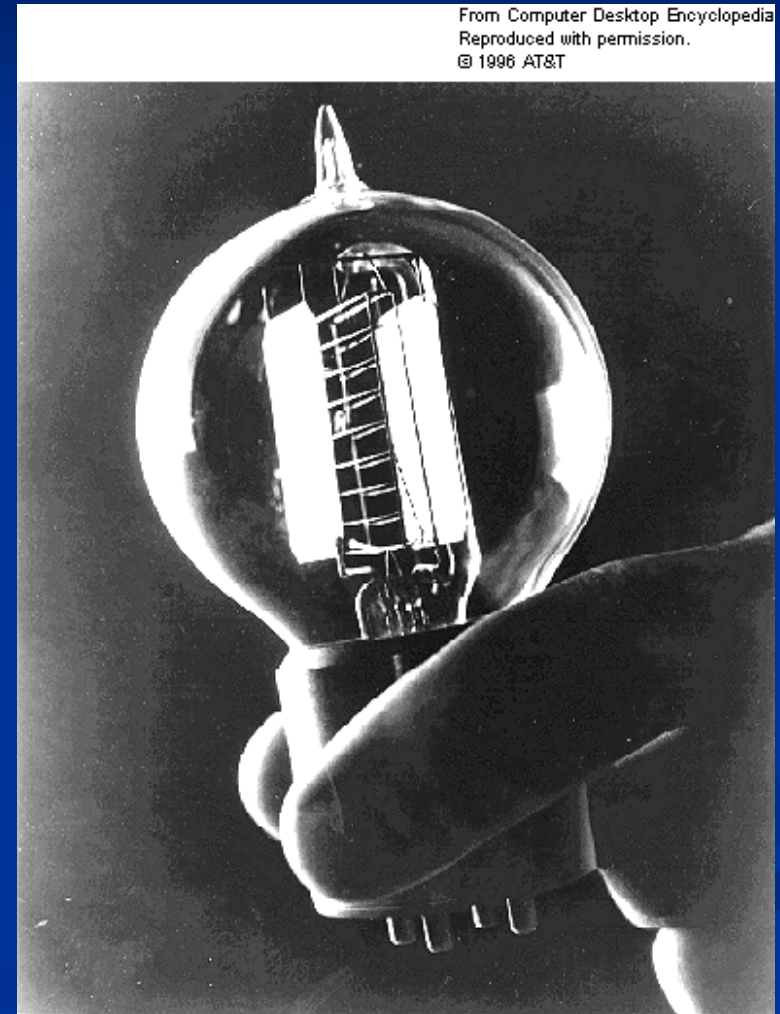
BLUE GENE (2004)



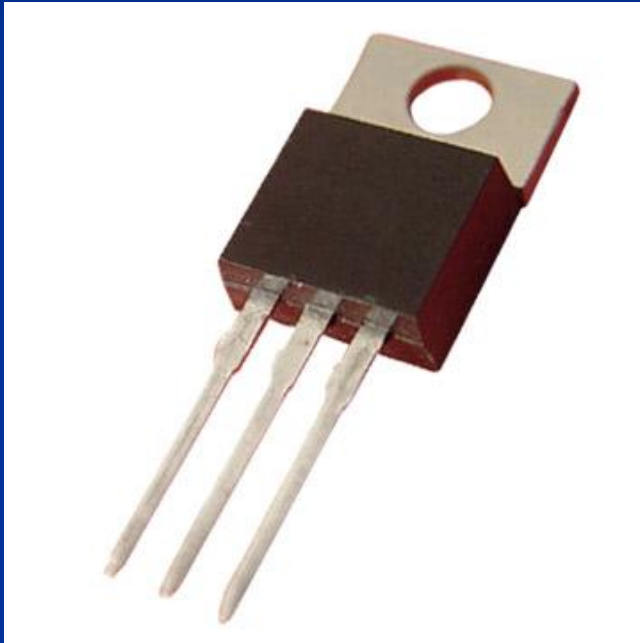
ΓΕΝΙΕΣ ΥΠΟΛΟΓΙΣΤΩΝ

ΓΕΝΙΑ	ΧΡΟΝΙΚΗ ΠΕΡΙΟΔΟΣ	ΒΑΣΙΚΗ ΔΟΜΙΚΗ ΜΟΝΑΔΑ	ΤΑΧΥΤΗΤΑ
1η	1944-1958	Ηλεκτρονική λυχνία 	50.000-200.000 πράξεις/δευτερόλεπτο
2η	1959-1964	Τρανζίστορ 	200.000-1.000.000 πράξεις/δευτερόλεπτο
3η	1965-1970	Ολοκληρωμένο κύκλωμα μικρής και μεσαίας κλίμακας 	1.000.000 πράξεις/δευτερόλεπτο
4η	1971-σήμερα	Ολοκληρωμένο κύκλωμα μεγάλης και πολύ μεγάλης κλίμακας 	πολλά εκατομμύρια πράξεις/δευτερόλεπτο

ΗΛΕΚΤΡΟΝΙΚΗ ΛΥΧΝΙΑ ('40)



ΤΡΑΝΣΙΣΤΟΡ ('50)



ΟΛΟΚΛΗΡΩΜΕΝΟ ΚΥΚΛΩΜΑ ('60)

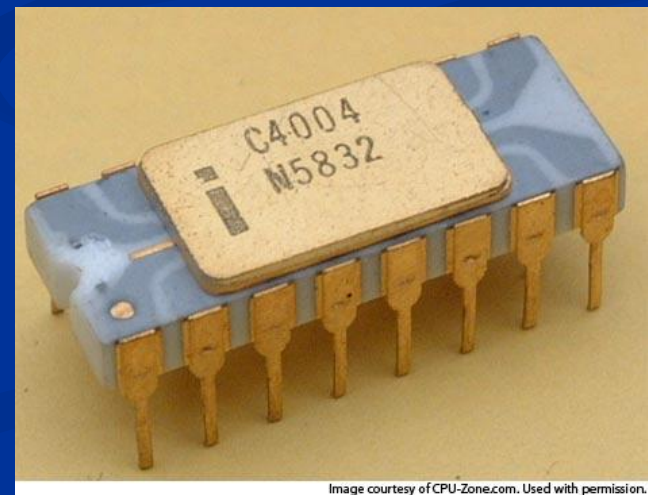
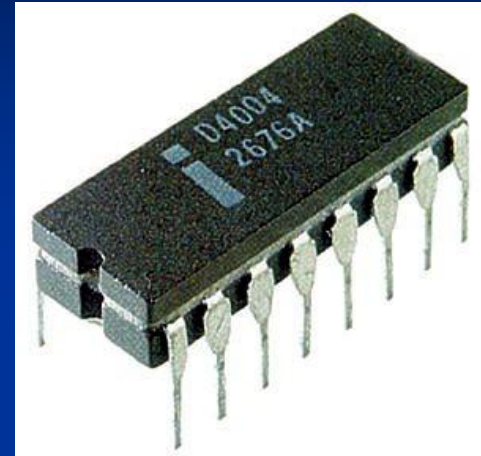
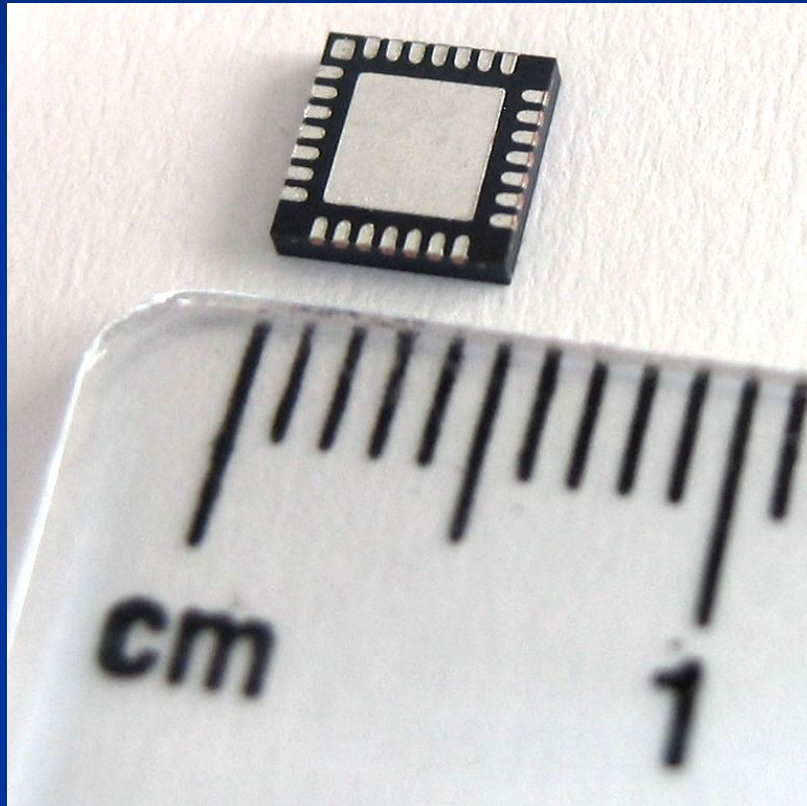


Image courtesy of CPU-Zone.com. Used with permission.

ΕΠΕΞΕΡΓΑΣΤΗΣ ('70 - σήμερα)

