

Cod. Disc: CMP1090 TURMA: \_\_\_\_\_ GRUPO: \_\_\_\_\_

NOME: \_\_\_\_\_ matricula: \_\_\_\_\_



**ESCOLA DE CIÊNCIAS EXATAS E DA  
COMPUTAÇÃO  
ENGENHARIA DE COMPUTAÇÃO  
CIÊNCIA DA COMPUTAÇÃO**

## **Laboratório Sistemas Digitais**

### **ANEXO**

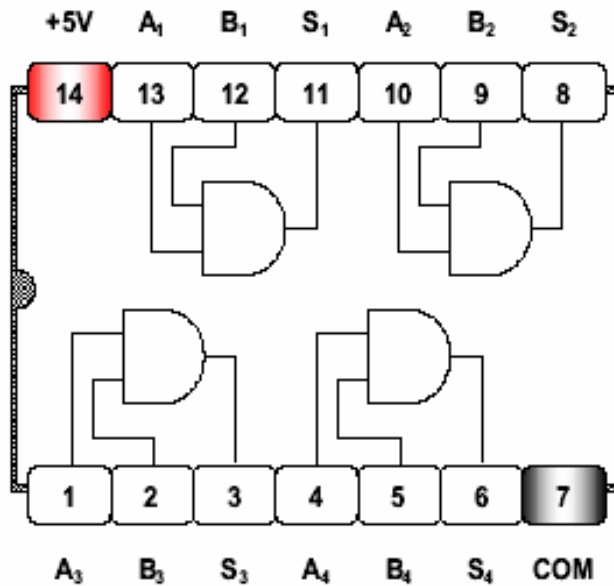
## **LAYOUT DOS CIs das PORTAS LÓGICAS BÁSICAS E OUTROS CIs DISPONÍVEIS**

**ESTE ANEXO SERÁ usado em TODAS AS AULAS DE PRÁTICAS NO LABORATÓRIO**

**PROF. MSc. MÁRIO OLIVEIRA ORSI  
PROF. MSc. CARLOS ALEXANDRE FERREIRA DE LIMA**

## LAYOUT DOS CIs das PORTAS LÓGICAS BÁSICAS

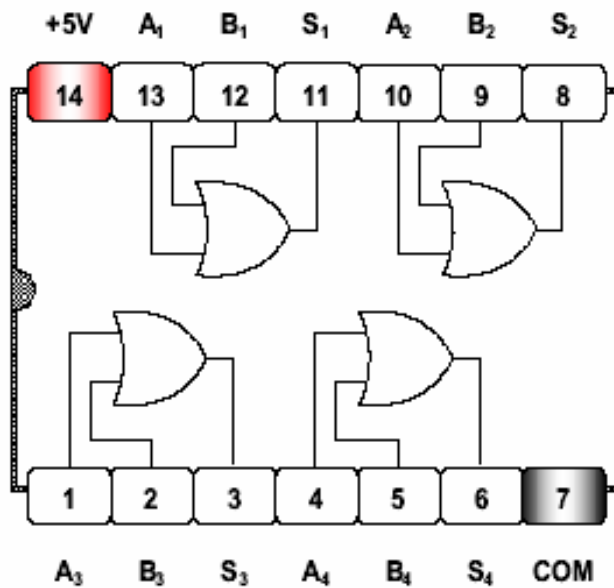
### CI 74\*08 (Quad 2-Input AND Gates = Quatro Portas E de 2 Entradas)



$$S = AB$$

A	B	S
0	0	0
0	1	0
1	0	0
1	1	1

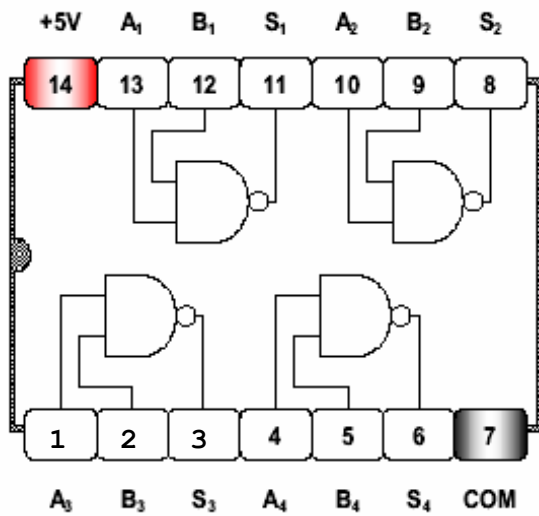
### CI 74\*32 (Quad 2-Input OR Gates = Quatro Portas OU de 2 Entradas)



$$S = A + B$$

A	B	S
0	0	0
0	1	1
1	0	1
1	1	1

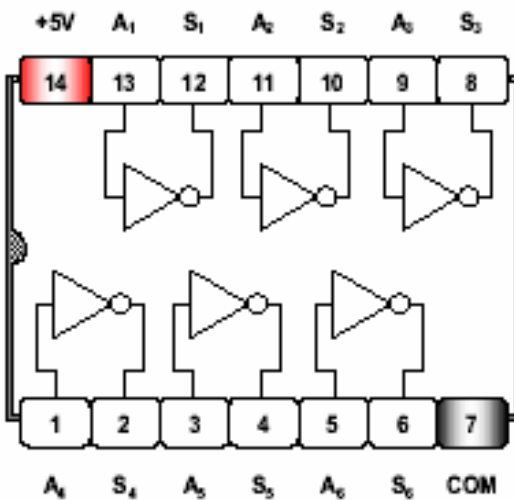
**CI 74\*00 (Quad 2-Input NAND Gates = Quatro Portas NE de 2 Entradas)**



$S = \overline{AB}$

A	B	S
0	0	1
0	1	1
1	0	1
1	1	0

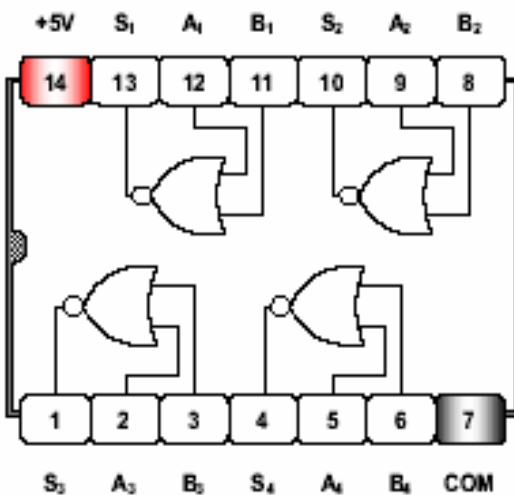
**CI 74\*04 (Hex Inverting Gates = 6 Inversores)**



$S = \overline{A}$

A	S
0	1
1	0

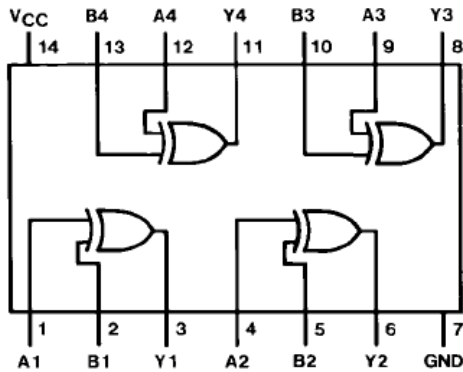
**CI 74\*02 (Quad 2-Input NOR Gates = Quatro Portas NOU de 2 Entradas)**



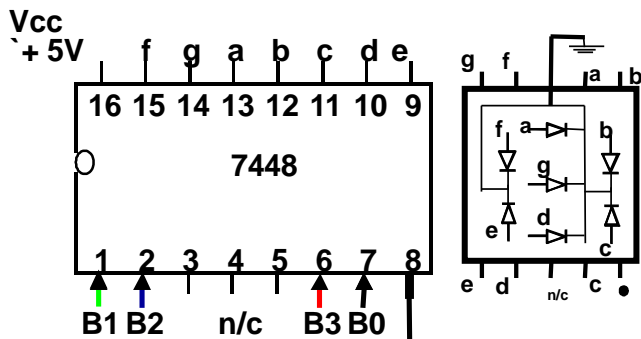
$S = \overline{A + B}$

A	B	S
0	0	1
0	1	0
1	0	0
1	1	0

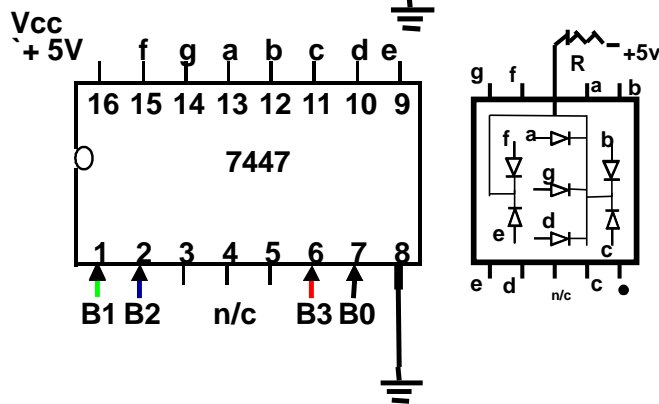
Outros circuitos integrados disponíveis:



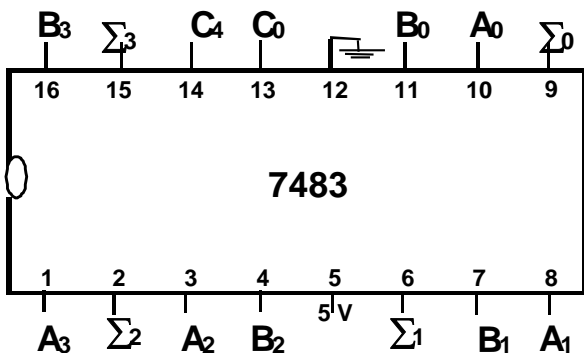
7486 : Quatro portas lógicas EX-OR



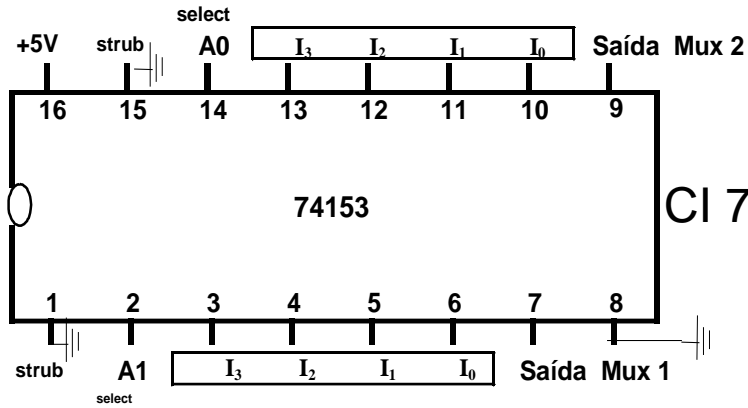
7448 Decodificador BCD  
Display catodo comum



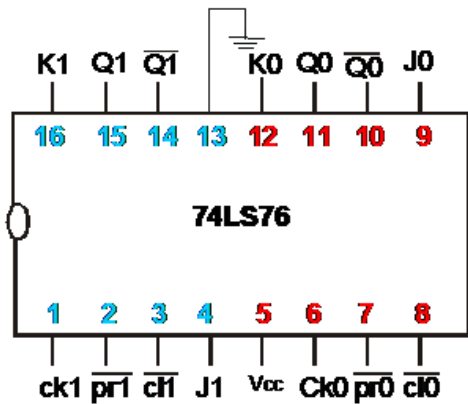
7447 Decodificador BCD  
Display anodo comum



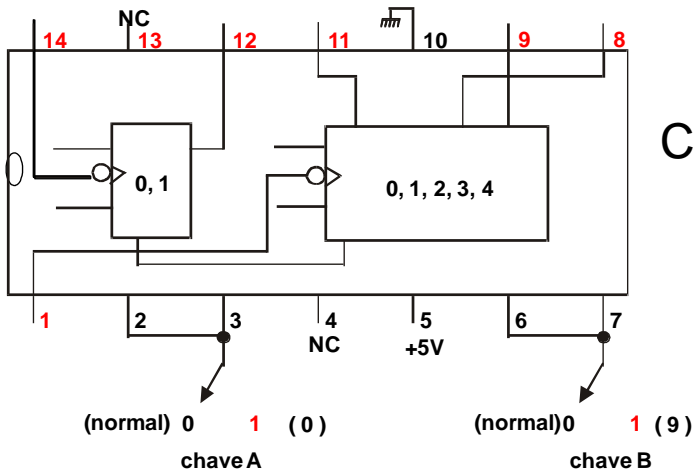
CI 7483 Somador Binário  
Paralelo de 4 bits



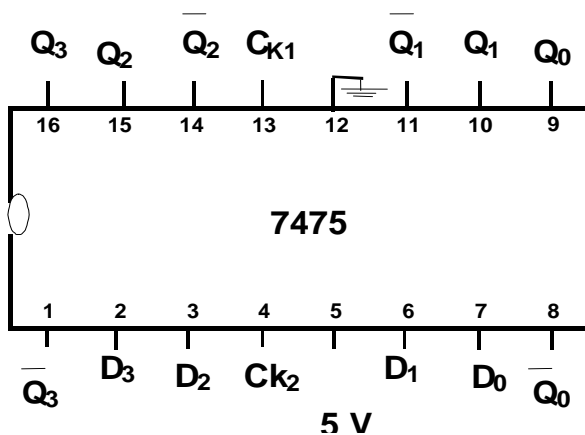
CI 74153: 2 x multiplex digital 4X1



CI 7476: 2 x flip-flop JK

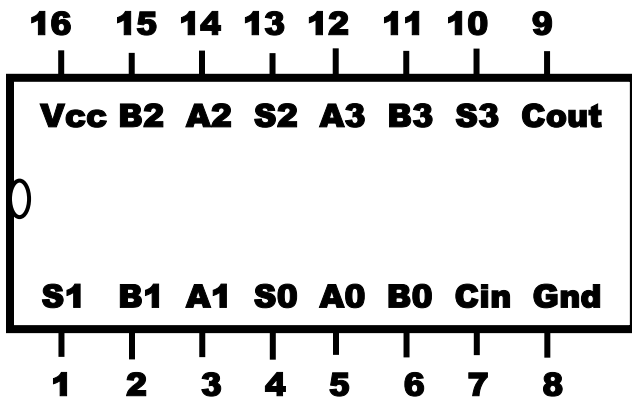


CI 7490: Contador BCD



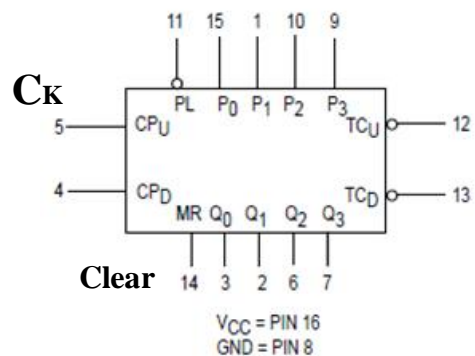
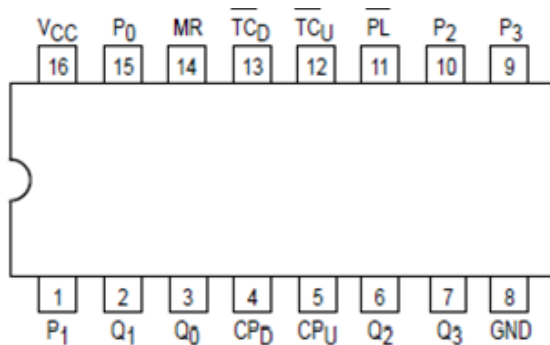
CI 7475: 2xflip-flop tipo D

Circuito Integrado	Descrição
	74 125 : Quatro buffers three state
	74 86 : Quatro portas lógicas EX-OR



CI 74283 Somador Binário Paralelo de 4 bits

CI 74192 (LAYOUT ABAIXO)  
Contador de década



SIMBOLO LOGICO: CI 74192