1.1 Three definitions of "bit":

(1) A binary digit (pp. 1, 4, 7-8 (defn.), 18, 20, 22, 25, 30).

(2) Past tense of "bite" (p. 1).

(3) A small amount (pp. 6, 14).

ASIC	Application-Specific Integrated Circuit
BD	Blu-ray Disc
CAD	Computer-Aided Design
CAE	Computer-Aided Engineering
CD	Compact Disc
CMOS	Complementary Metal-Oxide Semiconductor
CO	Central Office
CPLD	Complex Programmable Logic Device
DIP	Dual In-line Pin
DVD	Digital Versatile Disc
EDA	Electronic Design Automation
FPGA	Field-Programmable Gate Array
HDL	Hardware Description Language
IC	Integrated Circuit
IP	Internet Protocol
LSI	Large-Scale Integration
LUT	Lookup Table
MCM	Multichip Module
MOS	Metal-Oxide Semiconductor
MOSFET	Metal-Oxide Semiconductor Field Effect Transistor
MSI	Medium-Scale Integration
NMOS	N-channel Metal-Oxide Semiconductor
NRE	Nonrecurring Engineering
PBX	Private Branch Exchange
PCB	Printed-Circuit Board
PLD	Programmable Logic Device
PMIC	Power-Management Integrated Circuit
PMOS	P-channel Metal-Oxide Semiconductor
ROM	Read-Only Memory
SMT	Surface-Mount Technology
SSI	Small-Scale Integration
TTL	Transistor-Transistor Logic
VHDL	VHSIC Hardware Description Language
VLSI	Very Large-Scale Integration

DDPP Digital Design Principles and Practices

JPEG Joint Photographic Experts Group

MPEG Moving Picture Experts Group

MP3 MPEG audio layer 3

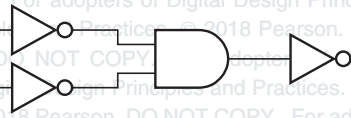
OK Although we use this word hundreds of times a week whether things are OK or not, we have probably rarely wondered about its history. That history is in fact a brief one, the word being first recorded in 1839, though it was no doubt in circulation before then. Much scholarship has been expended on the origins of OK, but Allen Walker Read has conclusively proved that OK is based on a sort of joke. Someone pronounced the phrase "all correct" as "oll (or orl) correct," and the same person or someone else spelled it "oll korrect," which abbreviated gives us OK. This term gained wide currency by being used as a political slogan by the 1840 Democratic candidate Martin Van Buren, who was nicknamed Old Kinderhook because he was born in Kinderhook, New York. An editorial of the same year, referring to the receipt of a pin with the slogan O.K., had this comment: "frightful letters . . . significant of the birth-place of Martin Van Buren, old Kinderhook, as also the rallying word of the Democracy of the late election, 'all correct' .... Those who wear them should bear in mind that it will require their most strenuous exertions ... to make all things O.K." [From the *American Heritage Electronic Dictionary (AHED)*, copyright 1992 by Houghton Mifflin Company]

PERL According to some, it's "Practical Extraction and Report Language." But the relevant Perl FAQ entry, in perlfaq1.pod, says "never write 'PERL', because perl isn't really an acronym, apocryphal folklore and post-facto expansions notwithstanding." (Thanks to Anno Siegel for enlightening me on this.)

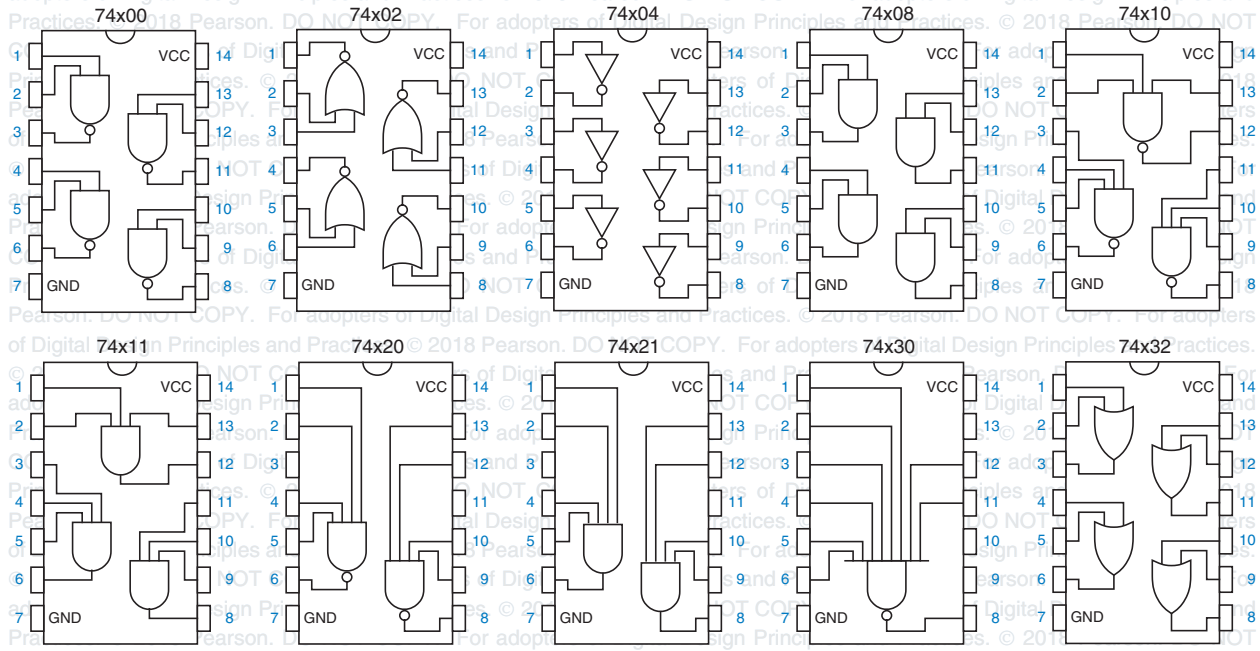
TCL Tool Command Language

- Wrist watches and alarm clocks.
- Cash registers? No, they were never really analog. Rather, they were electromechanical digital systems.
- Gasoline pumps.
- Bathroom scales.
- Thermometers and blood-pressure gauges.
- Speedometers.
- Sketches "drawn" by police artists.
- Musical greeting cards and toys.

1.5 The output is 0 when both inputs are 0; otherwise it's 1. The same function is performed by a single 2-input OR gate.



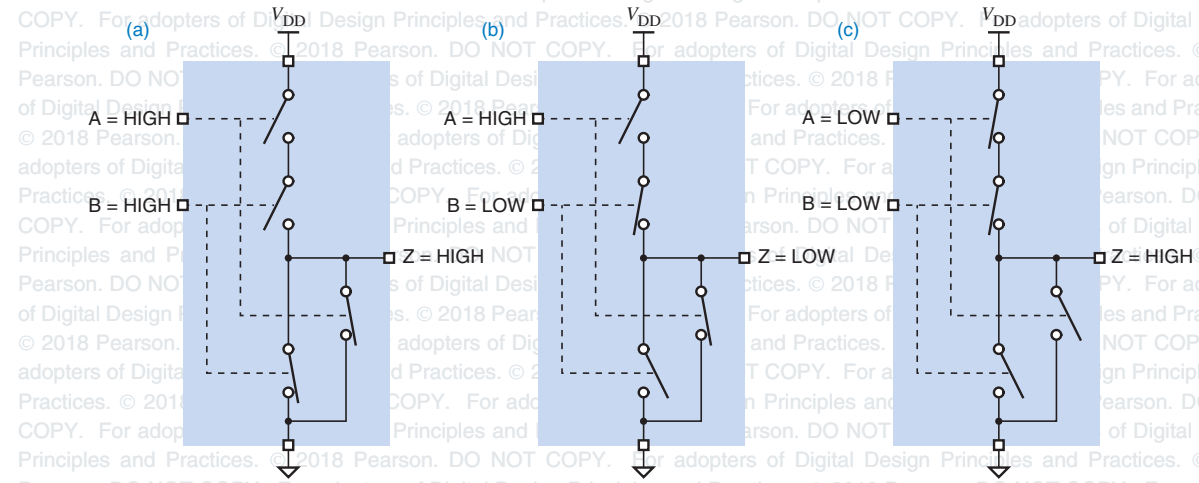
1.6 Just for fun, here's a bunch of them, reproduced from a previous edition.



1.7 In my book, “dice” is the plural of “die.”

1.8 The TI 74AUC1G00 is a 2-input NAND gate in a 5-pin package, which uses a 0.8-V to 2.7-V power supply. Its smallest package is the "YZP"-style die-size ball grid array, with dimensions 1.418 mm x 0.918 mm.

1.9 Using Adobe Illustrator, I was able to just reflect the original figure (except for Vcc and GND) on the horizontal axis and complement the input and output values appropriately.



1.10 *Q1* and *Q2*.

1.11 It's an 8x1 ROM, so just 8 bits.

1.12 Start with the last paragraph on p. 5. Then see the colored boxes on pp. 6 and 198. Also see Section 5.1.