“If anything can go wrong, it will” and usually does, especially when you’re entering an equation into a calculator.

Until now, you may have been using the error-prone procedure of encoding and decoding the steps of an assembly code. The Sharp 5100 Scientific Calculator eliminates this needless procedure. It’s the first programmable calculator that allows you to enter directly, using algebraic, logarithmic, exponential and other functions in their familiar form.

That’s Murphy’s Law defied.

The 5100 is also the first hand-held to give you a complete display of the equation: you see 24 characters at a time in a dot-matrix display that rolls right or left to accommodate one or more formulas of up to 80 steps. So that while other programmable calculators display only one program step at a time, the 5100 displays the actual equation in its entirety, and in the way you’re accustomed to seeing it.

If, anywhere along the line, you’ve entered an incorrect character (Murphy’s Law at work), the display makes it easy for you to spot. You can then move the 5100’s computer-like cursor to any part of the display to correct it.

In addition to the fast solution of frequently used formulas, the 5100 is extremely convenient for deriving difference tables, performing data analysis, numerical integration, simulations of linear systems, statistical and probability calculations, and many other procedures. It has so many uses, it would take a book to fully describe them, and someone has even written one.*

Sharp offers you a complete line of highly advanced scientifics, and if you want the leading edge in scientific calculators, buy the 5100 (under $90.00)†.

*Advanced Analysis with the Sharp 5100 Scientific Calculator by J.M. Smith. Published by John Wiley.
†Suggested Retail Price

Sharp Electronics Corp., 10 Sharp Plaza, Paramus, NJ 07652
Biotechnology: It's more than a promise at NEN

Currently we supply many of the chemicals critical to research in biotechnology. In fact, our newest manufacturing and research facility is quite appropriately called The Biotechnology Center.

But this kind of commitment by NEN to your research needs is nothing new. We are simply bringing 25 years of innovation and experience to bear on this exciting field.

What is unique about NEN's biotechnology program is its assurance of success in a growing field of contenders. From a broad, integrated product base we will continue to develop new products with steadily growing staff and facilities — now strengthened by the resources of Du Pont and its commitment to health care. In short, we will be there when the promise of biotechnology becomes reality.

NEN products for biotechnology

Research Systems — All necessary reagents and protocols packaged for specific molecular biology experiments, with components tested for reproducibility. We pioneered this concept because of its promise of general application to many areas of experimentation. Currently we offer fourteen systems.

Monoclonal Antibodies — We offer over sixty monoclonal antibodies and screening reagents, as well as complete ELISA screening systems.

NENZYMES™ — We developed these enzymes to new levels of purity for use in our own research systems, then made them available to meet the increasing demand by researchers.

32P Nucleotides — This comprehensive selection leads the field with innovations in specific activity, stability, packaging convenience, and delivery.

Other Products — Fluorescent chemicals, autoradiography enhancers, transfer membranes, and many essential labeled compounds, such as amino acids and nucleotides.

New England Nuclear
549 Albany Street, Boston, MA 02118
Call toll free: 800-225-1579, Telex: 94-0996
Mass. and Internat'l: 617-482-9595

Europe: NEN Chemicals GmbH, D-6072, W Germany
Postfach 401240, Tel. (06103) 803-0, Telex 4-17993 NEN D
NEN Canada: 2453 46th Avenue, Lachine, Que H8T 3C9
Tel. 514-636-4971, Telex 05-821808 © 1982 NEN

LEADER IN BIOLOGY
A Du Pont company

Circle No. 146 on Readers' Service Card

16 JULY 1982
Now You Can Separate Thousands of Racemic Mixtures!

For years, analysts have searched for an easier way to successfully isolate a broad range of optical isomers. Now, J.T. Baker Research Products introduces the BAKERBOND™ Chiral Phase HPLC column designed to resolve thousands of racemic mixtures.

In laboratory tests, BAKERBOND has proven to give the most complete separation for appropriate compound classes of any chiral phase available. With BAKERBOND, you get:

- High loading capacity — Up to 10 mg of sample in a single injection.
- Longer column life — Just use our Chiral Column Regenerating Solution.

All columns are available direct from J.T. Baker Research Products and include a Certificate of Analysis and Actual Test Chromatogram. Preparative chiral sorbents are also available for scale-up of separations.

Get to know J.T. Baker Research Products. For more product information, call today!

Toll-Free 800-526-0239
In New Jersey 201-859-2151

J.T. BAKER RESEARCH PRODUCTS

222 Red School Lane Phillipsburg, NJ 08865 USA

J.T. Baker

Baker Chemikalien: 6080 Gross Gerau, W. Germany Postfach 1661, Tel. (06152) 710371, Telex 04191113
J.T. Baker Chemicals B.V.: Rijsterborgherweg 20, 7400 AA Deventer, Holland, P.O. Box 17, Tel. (05700) 11341, Telex 49072
Whether you’re thinking retirement or not, review the plan that provides for cash withdrawal and/or a lifetime income.

TIAA-CREF Supplemental Retirement Annuities (SRAs) offer you substantial flexibility including cash withdrawal and/or lifetime retirement income. You can even reduce your income taxes now!

You can begin contributions to an SRA at any age and begin benefits at any age up to age 71 unless you are still employed (then you can delay beginning benefits until age 80). For example, you could start contributions at age 25, and choose to begin benefits or withdraw cash at age 34, 40 or 50, regardless of your employment status.

Get your money at any time.
You can receive benefits as a lifetime income or over a fixed period of from 2 to 10 years. What’s more, if you need it (even while employed by your current employer), you can withdraw all the money you have accumulated by surrendering your contracts. Or, you can withdraw $1,000 or more every six months. There is never a cash surrender charge.

Contributions are tax-deferred, so you pay less income taxes now.
The federal income tax on your contributions is deferred until they are paid to you as benefits. So, you pay less tax now.

Changing employers? Take SRAs with you.
Since you own your Supplemental Retirement Annuities, you take them with you if you leave your current employer. You can make contributions through any institution that makes Supplemental Retirement Annuities available to staff members. Contributions can be as little as $25 a month.

Full information.
Complete and mail the coupon for an SRA Information Kit today. You’ll get full details about all the advantages SRAs have to offer, why this plan suits so many financial situations and age groups and how much you may contribute to the plan.

TIAA-CREF provides annuities and other services for employees of colleges, universities, private schools and certain other nonprofit tax-exempt educational and research institutions.

HELP YOURSELF TO A BRIGHTER FINANCIAL FUTURE …SEND FOR A FREE INFORMATION KIT.

16 JULY 1982
Amoco is using invisible light to find the source materials for oil.

With the aid of light rays that lie beyond the visible range, Amoco oil exploration scientists are locating new hydrocarbon reserves. This technique begins with the identification of source materials.

Under ultra-violet rays, source materials for oil fluoresce, and become visible to the naked eye. Image analysis of this fluorescence reveals further details of the distribution of hydrocarbons in the reservoir. This technique has helped Amoco find oil in rock samples in Colorado.

It's just one of the technologies Amoco uses to find the energy America needs today, and to keep growing in the year 2000...and beyond.

You expect more from a leader.
The round black part shown below is the Teflon®-coated vacuum seal from a Büchi/Brinkmann Rotary Evaporator. Inspecting this seal periodically for wear and replacing it when necessary is virtually the only maintenance most Büchi Evaporators will ever require in normal use.

Manufactured in Switzerland by skilled craftsmen, Büchi Evaporators are designed to give years of trouble-free service. The motor and drive mechanism are built to stand up to the rigors of daily laboratory use. Glass and metal components fit together perfectly and have the finish of quality equipment. Jacks work smoothly and make raising and lowering the unit with its flasks an easy matter.

In short, ask any user why he likes his Büchi. He'll confirm the qualities that have made Büchi the world's most widely used rotary evaporator, unsurpassed in versatility, durability and safety of operation.

Büchi makes a full range of models and accessories for evaporating liquid volumes from 5ml to 50 liters, including pilot plant and explosion-proof models. For a brochure describing them all, write: Büchi Division, Brinkmann Instruments, Inc., Cantiague Road, Westbury, N.Y. 11590. In Canada: Brinkmann Instruments (Canada), Ltd.

On a Büchi Rotary Evaporator, this is the only part you may ever need to replace.