

# Calculated Answers

## All Grade Levels

Learning to use the special functions of calculators can expand children's knowledge of many arithmetic operations, help them to recognize number patterns and increase their ability to reason mathematically.

### What You Need

- \* Calculator with counting function

### What to Do

- \* Give your child a calculator that is appropriate for his age (one with large, easy-to-read keys is especially helpful). Show him how he can make the calculator "count" in sequence for him. (For most calculators, this is done by pushing a number button, then the + sign, then the button for the number to be added, then the = sign: for example:  $1 + 1 =$ . To make the calculator count in sequence by adding 1, keep pushing the = button:  $1 + 1 = 2 . . . 3 . . . 4 . . . 5$  and so on). Give the calculator to your child and have him try this, starting with  $1 + 1$ .
- \* When your child is comfortable with this function, have him explore number patterns such as  $2 + 2 =$ ,  $5 + 5 =$ ,  $50 + 50 =$ , and so forth.
- \* Next, show your child that he can use the same procedure to subtract—by substituting the - sign for the + sign:  $50 - 1 =$ , or  $100 - 5 =$ . Encourage him to explore other patterns.
- \* Let your older child learn about negative numbers by seeing what the calculator shows when they count down from 0 (for example,  $0 - 2 = -2$ ).
- \* Create number pattern puzzles for your child to solve. Try the following:
  - Write a sequence of numbers that follows a pattern, such as 3, 6, 9, 12. Ask your child what number comes next. Have him explain what the pattern is (*counting by 3s*).
  - Have your older child fill in missing numbers in patterns, such as 43, 38, \_\_\_\_\_, \_\_\_\_\_, 23, \_\_\_\_\_, 13. Ask him what the pattern is. (*subtracting by 5s*)
  - Have your child create number patterns for you to identify.

Asking children to explain in their own words how they arrive at a solution to a problem—including how they used a calculator—encourages them to get into the habit of thinking and reasoning mathematically.