More Number Tricks

Leader

Understand how to use symbols to set up and solve problems.

You will need:

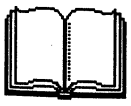
- ❑ A "More Number Tricks" student practice page
- ❑ Pencil

Do this:

- Give the directions. (Do not watch the students work.)
- Use symbols (□ for the secret number and ○ for one) instead of numbers.
- Use the square □ to represent the secret number.
- Use the circle ○ to represent the number one.
- Directions for number trick:

	answers with symbols	example with numerals
1. Think of a number	□	4
2. Add seven	□○○○○○○○	11
3. Multiply by two	□□ ○○○○○○○ ○○○○○○○	22
4. Subtract four	□□○○○○○ ○○○○○	18
5. Divide by two	□ ○○○○○	9
6. Subtract the number that you thought of	○○○○○	5

- Tell the student that the answer is five.
- Will the answer always be five regardless of the number you think of? Try different numbers.



Jacob, Harold R. *Elementary Algebra*. San Francisco: W.H. Freeman, 1979.

Student_____

Do this:

- Use the symbol (□) to represent a secret number.
- Use the circle (○) to represent the number one.
- Follow the directions using only □s and ○s.

1. Think of a number □_____
2. Add seven □○○○○○○○_____
3. Multiply by two _____
4. Subtract four _____
5. Divide by two _____
6. Subtract the number you thought of _____

- Substitute the □ and ○ with numbers.

1. Can you explain how it works?
2. Will the answer always be the same for any number you think of?

- Study the pictures below that illustrate the steps of another number trick. Explain what is happening in each step in words.

Step 1. □
Step 2. □ □ □ □
Step 3. □ □ □ □○○○○ ○○○○
Step 4. □ ○ ○
Step 5. □ ○○○○○
Step 6. ○○○○○

1. Can you explain how to find the answer to the number trick?
2. Can you make up another number trick?

WHAT I FOUND