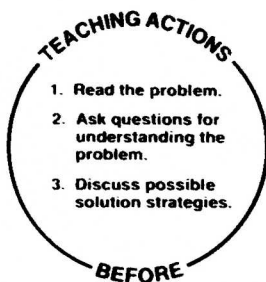


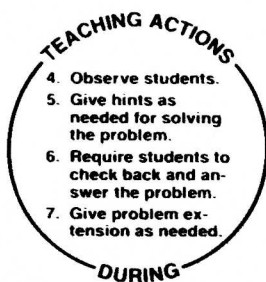
24 Process Problem

Leon wanted to know the age of a black bear at the zoo. The zoo keeper told Leon that if he added 10 years to the age of the bear and then doubled it, the bear would be 90 years old. How old is the bear? (Hint: Using the facts given, start with 90 years and work backwards.)



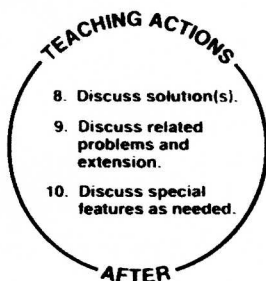
Understanding the Problem

- Did the zoo keeper tell Leon the bear's age? (no)
- What was the last thing the zoo keeper did to the bear's age? (He doubled it.)
- What was the first thing the zoo keeper did to the bear's age? (He added 10.)



Planning a Solution

- If you double a number and get 10, what number did you double? (5)
What operation did you use to get 5? (division— $10 \div 2 = 5$)
- The zoo keeper doubled a number and got 90. What operation could you use to get the number he doubled? (division—divide by 2)
- Is the bear 45 years old? (no)
- What did the zoo keeper do before he doubled the bear's age? (He added 10 to the bear's age.)
- Which operation would you use to find out how old the bear is? (subtraction— $45 - 10 = 35$)



Finding the Answer

Work Backwards

Start with 90, the final number given by zoo keeper.
Divide by 2 to get the number that was doubled— $90 \div 2 = 45$.
Subtract 10 to get the age of the bear before 10 years was added—
 $45 - 10 = 35$.

The bear was 35 years old.

Problem Extension

Leon also wanted to know the age of a turtle he saw at the zoo. The zoo keeper said that if he added 14 years to the age of the turtle and then doubled it, the turtle would be 200 years old. How old was the turtle? (86)