## **Algorithm: Simple Calculator Using Switch Case**

- 1. Start
- 2. Display the calculator title and list of supported operations:
  - o Addition (+)
  - Subtraction (-)
  - Multiplication (\*)
  - o Division (/)
  - o Modulus (%)
- 3. **Label:** repeat
- 4. Prompt the user to enter the first operand
  - → Store it in num1
- 5. Prompt the user to enter the second operand
  - → Store it in num2
- 6. Prompt the user to **enter the operator** 
  - $\rightarrow$  Store it in operator
- 7. Use a **switch-case** structure to perform the selected operation:
  - o Case '+':
    - $\rightarrow$  Add num1 and num2
    - → Display the result
  - o Case '-':
    - → Subtract num2 from num1
    - → Display the result
  - Case '\*':
    - → Multiply num1 and num2
    - $\rightarrow$  Display the result
  - o Case '/':
    - $\rightarrow$  Check if num2 is 0
      - If yes: Print error "Cannot divide by zero"
      - Else: Divide num1 by num2 and display the result
  - o Case '%':
    - → Convert num1 and num2 to integers
    - → Find num1 % num2
    - $\rightarrow$  Display the result
  - o **Default**:
    - → Print "Invalid Operator. Try Again."
- 8. Ask the user if they want to continue
  - $\rightarrow Input \ character \ into \ \texttt{operator}$
- 9. If the input is 'N' or 'n':
  - → Display "Thank you for using Calculator"
  - $\rightarrow$  Stop the program
- 10. Else:
  - → Print new lines
  - → Go to step 4 (using goto repeat)