**PSUEDOCODE:**

**BEGIN VendingMachineSimulation**

**DISPLAY welcome message**

**INITIALIZE total\_money = 0**

**LOOP until user enters 0**

**DISPLAY "Insert currency options: 1c, 5c, 10c, 25c, $1, $5, or 0 to stop"**

**GET user input as deposit**

**IF deposit == 0 THEN**

**BREAK loop**

**ELSE**

**ADD deposit to total\_money**

**DISPLAY total money deposited**

**IF total\_money == 0 THEN**

**DISPLAY "No money inserted, exiting..."**

**EXIT program**

**INITIALIZE item\_prices as dictionary with product prices**

**LOOP up to 5 attempts OR until successful purchase**

**DISPLAY item menu with numbers 1-5 and prices**

**GET user input as item\_selection**

**IF item\_selection == 0 THEN**

**DISPLAY "Transaction cancelled"**

**CALL ReturnChange(total\_money)**

**EXIT program**

**ENDIF**

**GET item price from item\_prices[item\_selection]**

**IF total\_money >= item\_price THEN**

**SUBTRACT item\_price from total\_money**

**DISPLAY "Item dispensed"**

**CALL ReturnChange(total\_money)**

**EXIT program**

**ELSE**

**DISPLAY "Insufficient funds. Please try again."**

**ENDIF**

**END LOOP**

**DISPLAY "Maximum attempts reached"**

**CALL ReturnChange(total\_money)**

**END VendingMachineSimulation**

**FUNCTION ReturnChange(amount)**

**INITIALIZE coins as [25, 10, 5, 1]**

**INITIALIZE change\_distribution as empty list**

**FOR coin in coins**

**WHILE amount >= coin**

**ADD coin to change\_distribution**

**SUBTRACT coin from amount**

**DISPLAY change\_distribution**

**END FUNCTION**