

Pseudocode Solutions (from slides)

1. Discount Calculator

1. START
2. INPUT originalPrice
3. INPUT discountPercentage
4. $\text{discountAmount} = \text{originalPrice} * (\text{discountPercentage} / 100)$
5. $\text{finalPrice} = \text{originalPrice} - \text{discountAmount}$
6. OUTPUT discountAmount
7. OUTPUT finalPrice
8. END

2. Sum Until Negative Number

1. START
2. $\text{sum} = 0$
3. INPUT number
4. WHILE $\text{number} \geq 0$
5. $\text{sum} = \text{sum} + \text{number}$
6. INPUT number
7. END WHILE
8. OUTPUT sum
9. END

3. Count Even Numbers

1. START
2. INPUT stopPoint
3. $\text{count} = 0$

4. number = 1
5. WHILE number <= stopPoint
6. IF number MOD 2 = 0
7. count = count + 1
8. END IF
9. number = number + 1
10. END WHILE
11. OUTPUT count
12. END

4. Sales Tax Calculator

1. START
2. INPUT billAmount
3. INPUT taxPercentage
4. taxAmount = billAmount * (taxPercentage / 100)
5. finalBillAmount = billAmount + taxAmount
6. OUTPUT taxAmount
7. OUTPUT finalBillAmount
8. END

5. Currency Conversion Calculator

1. START
2. INPUT sourceAmount
3. INPUT conversionRate
4. convertedAmount = sourceAmount * conversionRate
5. OUTPUT convertedAmount
6. END

6. Loan Interest Calculator

1. START
2. INPUT loanAmount
3. INPUT annualInterestRate
4. $\text{interestAmount} = \text{loanAmount} * (\text{annualInterestRate} / 100)$
5. $\text{totalAmount} = \text{loanAmount} + \text{interestAmount}$
6. OUTPUT interestAmount
7. OUTPUT totalAmount
8. END

7. Monthly Savings Calculator

1. START
2. INPUT monthlySavingAmount
3. INPUT numberOfMonths
4. $\text{totalSavings} = \text{monthlySavingAmount} * \text{numberOfMonths}$
5. OUTPUT totalSavings
6. END

8. Factorial Calculator

1. START
2. INPUT number
3. factorial = 1
4. counter = 1
5. WHILE counter <= number
6. factorial = factorial * counter
7. counter = counter + 1
8. END WHILE
9. OUTPUT factorial

10. END