Calculate fine rate.

#include <stdio.h>

int calculateFineRate(int daysOverdue) {

int fineRate = 0;

if (daysOverdue <= 7) {

fineRate = 20;

} else if (daysOverdue <= 14) {

fineRate = 50;

} else {

fineRate = 100;

}

return fineRate;

}

int main() {

int bookID, dueDate, returnDate;

// Input book ID, due date, and return date

printf("Enter book ID: ");

scanf("%d", &bookID);

printf("Enter due date: ");

scanf("%d", &dueDate);

printf("Enter return date: ");

scanf("%d", &returnDate);

// Calculate days overdue

int daysOverdue = returnDate - dueDate;

// Calculate fine rate

int fineRate = 0;

if (daysOverdue > 0) {

fineRate = calculateFineRate(daysOverdue);

}

// Calculate fine amount

int fineAmount = daysOverdue \* fineRate;

// Display results

printf("\nBook ID: %d\n", bookID);

printf("Due Date: %d\n", dueDate);

printf("Return Date: %d\n", returnDate);

printf("Days Overdue: %d\n", daysOverdue);

printf("Fine Rate: $%d per day\n", fineRate);

printf("Fine Amount: $%d\n", fineAmount);

return 0;

}