

```

import java.util.Scanner;

public class Main{
    public static void main(String[] args) {
        Scanner scan = new Scanner(System.in);
        System.out.println("What is your hourly wage in USD?");
        double wage = scan.nextDouble();
        System.out.println("How many hours did you work in the past week?");
        double hoursWorked = scan.nextDouble();
        paycheck(wage, hoursWorked);
        scan.nextLine(); // Reads the newline

        System.out.println("Enter a string of your choosing:");
        String userStr = scan.nextLine();
        extractMiddle(userStr);

        System.out.println("What is the total cost spent at the bookstore in USD?");
        double cost = scan.nextDouble();
        bookstore(cost);

        System.out.println("Pick an integer number between 1 and 10, inclusive:");
        int myGuess = scan.nextInt();
        guessMyNumber(myGuess);
        scan.nextLine(); // Reads the newline

        System.out.println("Enter 3 integer numbers separated by a space.");
        String line = scan.nextLine();
        String[] numbers = line.split(" ");
        int numOne = Integer.parseInt(numbers[0]);
        int numTwo = Integer.parseInt(numbers[1]);
        int numThree = Integer.parseInt(numbers[2]);
        minimumOfThree(numOne, numTwo, numThree);
        scan.close();
    }
    /**
     * Compute the pay. Any overtime work (over 40 hours per week) is
     * paid at 150 percent of the regular wage.
     * @param wage the hourly wage in USD
     * @param hoursWorked the number of hours worked in one week
     */
    public static void paycheck(double wage, double hoursWorked) {
        System.out.println("Wage: " + wage + " Hours Worked: " + hoursWorked + "\n");
        double pay=wage*hoursWorked;
        if(hoursWorked>40){
            pay+=(wage*1.5)*(hoursWorked-40);
        }
        System.out.println("You should get paid $" + pay);
    }
    /**
     * Your task is to extract a string containing the middle character from
     * a given String str.
     * For example, if the string is "crate", the result is the string "a".
     * However, if the string has an even
     * number of letters, extract the middle two characters. If the string is
     * "crates", the result is "at".
     * @param str a String
     */
    public static void extractMiddle(String str) {
        System.out.println("Original String: " + str + "\n");
    }
}

```

```

        if(str.length()%2==0){
            System.out.println("Middle: " + str.charAt(((int) str.length()/2)-1) +
str.charAt((int) str.length()/2));
        }
        else {
            System.out.println("Middle: " + str.charAt((int) str.length()/2));
        }
    }
}
/**
 * The university bookstore has a KiloByte Day sale every October 24,
giving an 8 percent discount on all
 * computer accessory purchases if the price is less than $128, and a
16 percent discount if the price is at
 * least $128. Write a program that prints the discounted price? What
values should you use to test your program?
 * @param costOfBook the original cost of purchases
 */
public static void bookstore(double cost) {
    System.out.println("Original Cost: " + cost + "\n");
    if(cost<128){
        System.out.print("New Cost: ");
        System.out.println(+ (cost-(cost*8/100.0)) + "\n");
    }
    else{
        System.out.print("New Cost: ");
        System.out.println(+ (cost-(cost*16/100.0)) + "\n");    }
}
/**
 * Design and write a program that plays a simple guessing game with
a user. The program should ask the
 * user to choose a number between 1 and 10. The program should
randomly generate a number between 1 and 10.
 * If the user guesses the correct number a message should be
displayed that tells the user they guessed the
 * correct number. If the user guesses the incorrect number a message
should be displayed that tells the user
 * they did not guess the correct number.
 */
public static void guessMyNumber(int guess) {
    int num=(int) (Math.random()*10+1);
    System.out.println("Guess: " + guess + "\n");
    if(guess==num){
        System.out.println("You win :)");
    }
    else{
        System.out.println("You did not guess correctly :)");
    }
}
/**Write a program that asks the user for three integers and
determines the smallest value (without using Math.min()).
 * Your program should print out the three user provided values, then
print out the minimum value.
 */
public static void minimumOfThree(int numOne, int numTwo, int
numThree) {
    System.out.print(numOne + " "); System.out.print(numTwo + " ");
System.out.print(numThree + " "); System.out.print("\n");
    if(numOne<numTwo && numOne<numThree)
        System.out.println(numOne);
}

```

```
else if(numOne>numTwo && numTwo<numThree)
    System.out.println(numTwo);
else
    System.out.println(numThree);
}
}
```