

Homework 1

Upload your source code file from *DEUZEM SAKAI* until **November 24, 2024, 23:55**.

Upload only a single *.cs file.

The name of the file: **number_name_surname.cs**

For example: 2023510028_ali_yildirim.cs



Write a C# program for "**Jackpot Machine**" that prints the coins the player gets.

There are three reels which has numbers between 1 and 6 in the different 3 colors (red, blue and green).

- If the reels show the same number in the same colors, he gets \$30 points.
i.e. (4 4 4) or (3 3 3) or (6 6 6) or ...
- If the reels show the same number in the different colors, he gets \$28 points.
i.e. (1 1 1) or (5 5 5) or (3 3 3) or ...
- If the reels show the same number, but they are not all the same color and not all the different colors, he gets \$26 points.
i.e. (1 1 1) or (5 5 5) or (3 3 3) or ...
- If the reels show the consecutive numbers in the same color, he gets \$20 points.
i.e. (2 3 4) or (3 2 1) or (5 3 4) or ...
- If the reels show the consecutive numbers in the different colors, he gets \$18 points.
i.e. (2 3 4) or (3 2 1) or (5 3 4) or ...
- If the reels show the consecutive numbers, but they are not all the same color and not all the different colors, he gets \$16 points.
i.e. (2 3 4) or (3 2 1) or (5 3 4) or ...
- If the reels show the different numbers (not consecutive numbers, not any equality) in the same color, he gets \$10 points.
i.e. (1 4 2) or (2 5 1) or (4 6 2) or ...
- If the reels show the different numbers (not consecutive numbers, not any equality) in the different colors, he gets \$8 points.
i.e. (1 5 6) or (3 5 2) or (4 1 6) or ...
- If the reels show the same color, but they are not all equal, not all the consecutive numbers and not all the different numbers, he gets \$6 points.
i.e. (1 4 4) or (2 5 5) or (6 6 2) or ...
- Otherwise, he gets \$0 points.
i.e. (1 1 4) or (2 2 6) or ...

BONUS: In addition to above conditions, if all numbers are *even* or *odd* in any color(s), he gets extra bonus \$3.

i.e. (2 4 6) or (3 5 5) or (6 4 6) or (5 1 3) or (2 2 2) or (2 2 2) or ...

The numbers on the Jackpot machine should be generated randomly, therefore please don't take any *input* from the user in this part. Then the score the player gets should be calculated and printed.

After that, the program should ask the user whether he/she wants to play again or not. According to the choice of the user, the game should be repeated or over. At the end of the program (when the user selects not repeating the game), total score obtained during different game plays should also be printed.

Sample Output:

```
5 5 5
Congratulations!
You win $28.
You win $3 bonus.

Do you want to play again? (Y or N)
Y
-----
```

```

1 1 2
You lost ☹

Do you want to play again? (Y or N)
Y
-----

5 3 4
Congratulations!
You win $16.

Do you want to play again? (Y or N)
Y
-----

1 1 3
You lost ☹
You win $3 bonus.

Do you want to play again? (Y or N)
N
.....

The game is finished!
Total score obtained is $50

```

This homework will be graded by Res.Asst. Onur Can DOĞANLAR.

You can ask your questions to him from the “**FORUM → Homework 1 - Questions**” part of the *DEUZEM SAKAI* software.

Notes:

1. You should use meaningful variable names, appropriate comments, and good prompting messages.
2. If you want, you may write your own “*procedures / functions*”. Don’t use arrays.
3. Your program must work correctly under all conditions. Try to control all possible errors.
4. If you are late, your grade will be decreased 10 points for each day. After five days, your assignment will not be accepted.
5. Assignment must be your individual work. **Cheating** is strictly prohibited. If any cheating occurs, your assignment will be graded with **zero (0)**. A software will be used to automatically detect the similarities between all the source-codes of all the students.