BASKAR A 2024-CSE

Week-03-Decision Making and Branching-if, if...else and nested if...else, if...else if and switch...case

[Week-03-02-Practice Session-Coding](#)

Question 1 Correct Marked out of 3.00 ⚐ Flag question	Write a program to read two integer values and print true if both the numbers end with the same digit, otherwise print false. Example: If 698 and 768 are given, program should print true as they both end with 8. Sample Input 1 25 53 Sample Output 1 false Sample Input 2 27 77 Sample Output 2 true **Answer:** (penalty regime: 0 %)

Source code

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main()
{
    int n;
    scanf("%d",&n);
    switch(n)
    {
        case 3:
        printf("Triangle");
        break;
        case 4:
        printf("Quadrilateral");
        break;
        case 5:
        printf("Pentagon");
        break;
        case 6:
        printf("Hexagon");
        break;
        case 7:
        printf("Heptagon");
        break;
        case 8:
        printf("Octogon");
        break;
        case 9:
        printf("Nonagon");
        break;
        case 10:
        printf("Decogon");
        break;
        default:
        printf("The number of sides is not supported.");
    }
    return 0;
}
```

Result

Input	Expected	Got	
3	Triangle	Triangle	✓
7	Heptagon	Heptagon	✓
11	The number of sides is not supported.	The number of sides is not supported.	✓

Passed all tests! ✓

The Chinese zodiac assigns animals to years in a 12-year cycle. One 12-year cycle is shown in the table below. The pattern repeats from there, with 2012 being another year of the Dragon, and 1999 being another year of the Hare.

Year	Animal
2000	Dragon
2001	Snake
2002	Horse
2003	Sheep
2004	Monkey
2005	Rooster
2006	Dog
2007	Pig
2008	Rat
2009	Ox
2010	Tiger
2011	Hare

Write a program that reads a year from the user and displays the animal associated with that year. Your program should work correctly for any year greater than or equal to zero, not just the ones listed in the table.

Source code

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main()
{
    int n;
    scanf("%d",&n);
    n=(n%12)+4;
    switch(n)
    {
    case 0:
    printf("Dragon");
    break;
    case 1:
    printf("Snake");
    break;
    case 2:
    printf("Horse");
    break;
    case 3:
    printf("Sheep");
    break;
    case 4:
    printf("Monkey");
    break;
    case 5:
    printf("Rooster");
    break;
    case 6:
    printf("Dog");
    break;
    case 7:
    printf("Pig");
    break;
    case 8:
    printf("Rat");
    break;
    case 9:
    printf("Ox");
    break;
    case 10:
    printf("Tiger");
    break;
    case 11:
    printf("Hare");
    break;
    }

    return 0;
}
```

Result

	Input	Expected	Got	
✓	2004	Monkey	Monkey	✓
✓	2010	Tiger	Tiger	✓

Passed all tests! ✓

Positions on a chess board are identified by a letter and a number. The letter identifies the column, while the number identifies the row, as shown below:
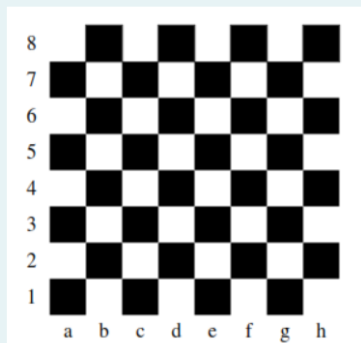
Write a program that reads a position from the user. Use an if statement to determine if the column begins with a black square or a white square. Then use modular arithmetic to report the color of the square in that row. For example, if the user enters a1 then your program should report that the square is black. If the user enters d5 then your program should report that the square is white. Your program may assume that a valid position will always be entered. It does not need to perform any error checking.

Source code

Answer: (penalty regime: 0 %)

```
1  #include <stdio.h>
2  int main()
3  {
4      int x;
5      char y;
6      scanf("%c %d",&y,&x);
7      if ((y-'a')%2==0)
8       if(x%2==0)
9        printf("The square is white.");
10       else
11        printf("The square is black.");
12      else if(x%2==0)
13       printf("The square is black.");
14      else
15       printf("The square is white.");
16      return 0;
17
18  }
```

Result

	Input	Expected	Got	
✓	a 1	The square is black.	The square is black.	✓
✓	d 5	The square is white.	The square is white.	✓

Passed all tests! ✓