Week 3

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Computer science and design

Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Wednesday, 6 November 2024, 11:18 AM
Duration	47 days 6 hours

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 %)

```c
#include<stdio.h>
int main()
{
    int a,b;
    scanf("%d %d",&a,&b);
    if(a%10 == b%10)
    {
        printf("true");
    }
    else
    {
        printf("false");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	25 53	false	false	✓
✓	27 77	true	true	✓

Passed all tests! ✓

Objective

In this challenge, we're getting started with conditional statements.

Task

Given an integer, ***n***, perform the following conditional actions:

- If ***n*** is odd, print Weird
- If ***n*** is even and in the inclusive range of ***2*** to ***5***, print ***Not Weird***
- If ***n*** is even and in the inclusive range of ***6*** to ***20***, print ***Weird***
- If ***n*** is even and greater than ***20***, print ***Not Weird***

Complete the stub code provided in your editor to print whether or not ***n*** is weird.

Input Format

A single line containing a positive integer, ***n***.

Constraints

```c
#include<stdio.h>
int main()
{
    int n;
    scanf ("%d",&n);
    if(n%2!=0)
    {
        printf("Weird");
    }
    else if (n%2==0 && n>=2 && n<=5)
    {
        printf ("Not Weird");
    }
    else if (n%2==0 && n>=6 && n<=20)
    {
        printf("Not Weird");
    }
    else
    {
        printf ("Not Weird");
    }
}
```

	Input	Expected	Got	
✓	3	Weird	Weird	✓
✓	24	Not Weird	Not Weird	✓

Passed all tests! ✓

Three numbers form a Pythagorean triple if the sum of squares of two numbers is equal to the square of the third. For example, 3, 5 and 4 form a Pythagorean triple, since 3*3 + 4*4 = 25 = 5*5 You are given three integers, a, b, and c. They need not be given in increasing order. If they form a Pythagorean triple, then print "yes", otherwise, print "no". Please note that the output message is in small letters. Sample Input 1 3 5 4 Sample Output 1 yes Sample Input 2 5 8 2 Sample Output 2 no

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main()
{
    int a,b,c;
    scanf("%d %d %d",&a,&b,&c);
    if(a*a+b*b==c*c ||
       b*b+c*c==a*a ||
       a*a+c*c==b*b )
    {
        printf("yes");
    }
    else
    {
        printf("no");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	3 5	yes	yes	✓

Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Wednesday, 11 December 2024, 11:20 AM
Duration	12 days 6 hours

Question **1**

Not answered

Marked out of 3.00

Flag question

Some data sets specify dates using the year and day of year rather than the year, month, and day of month. The day of year (DOY) is the sequential day number starting with day 1 on January 1st.

There are two calendars - one for normal years with 365 days, and one for leap years with 366 days. Leap years are divisible by 4. Centuries, like 1900, are not leap years unless they are divisible by 400. So, 2000 was a leap year.

To find the day of year number for a standard date, scan down the Jan column to find the day of month, then scan across to the appropriate month column and read the day of year number. Reverse the process to find the standard date for a given day of year.

Write a program to print the Day of Year of a given date, month and year.

Sample Input 1

18

6

```c
#include<stdio.h>
int main()
{
    int day,month,year;
    scanf("%d%d%d",&day,&month,&year);
    int days = 0;
    int isleapyear;
    if (year%4==0)
    {
        isleapyear=1;
    }
    else
    {
        isleapyear=0;
    }
    for ( int i=1;i<month;i++)
    {
        if (i==1 || i==3 || i==5 || i==7 || i==8 || i==10 || i==12)
        {
        day +=31;
        }
        else if (i==2)
        {
            if (isleapyear==1)
            {
                day+=29;
            }
            else
            {
                day+=28;
            }
        }
        else
        {
            days+=30;
        }
    }
            else
            {
                day+=28;
            }
        }
        else
        {
            days+=30;
        }
    }
    days+=day;
    printf("%d",days);
    return 0;
}
```

	Input	Expected	Got	
✓	18 6 2020	170	170	✓

Passed all tests! ✓

Suppandi is trying to take part in the local village math quiz. In the first round, he is asked about shapes and areas. Suppandi, is confused, he was never any good at math. And also, he is bad at remembering the names of shapes. Instead, you will be helping him calculate the area of shapes.

- When he says rectangle he is actually referring to a square.
- When he says square, he is actually referring to a triangle.
- When he says triangle he is referring to a rectangle
- And when he is confused, he just says something random. At this point, all you can do is say 0.

Help Suppandi by printing the correct answer in an integer.

Input Format

- Name of shape (always in upper case R à Rectangle, S à Square, T à Triangle)
- Length of 1 side
- Length of other side

Note: In case of triangle, you can consider the sides as height and length of base

Output Format

- Print the area of the shape.

```c
#include <stdio.h>
int main()
{
    char ch;
    int a,b;
    scanf ("%c %d %d", &ch ,&a ,&b);
    if (ch =='T')
    {
        printf("%d",a*b);
    }
    else if (ch=='S')
    {
        printf("%d",(a*b)/2);
    }
    else if (ch=='R')
    {
        printf("%d",a*b);
    }
    else
    {
        printf ("0");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	T 10 20	200	200	✓
✓	S 30 40	600	600	✓

Superman is planning a journey to his home planet. It is very important for him to know which day he arrives there. They don't follow the 7-day week like us. Instead, they follow a 10-day week with the following days: Day Number Name of Day 1 Sunday 2 Monday 3 Tuesday 4 Wednesday 5 Thursday 6 Friday 7 Saturday 8 Kryptonday 9 Coluday 10 Daxamday Here are the rules of the calendar: • The calendar starts with Sunday always. • It has only 296 days. After the 296th day, it goes back to Sunday. You begin your journey on a Sunday and will reach after n. You have to tell on which day you will arrive when you reach there.

Input format: •

Contain a number n (0 < n)

Output format: Print the name of the day you are arriving on

Example Input

7

Example Output

Kryptonday

Example Input

1

Example Output Monday

```c
#include<stdio.h>
int main()
{
    int n;
    scanf("%d",&n);
    n=n%296;
    int day=n%10;
    switch(day)
    {
        case 0:printf("Sunday");
        break;
        case 1:printf("Monday");
        break;
        case 2:printf("Tuesday");
        break;
        case 3:printf("Wednesday");
        break;
        case 4:printf("Thursday");
        break;
        case 5:printf("Friday");
        break;
        case 6:printf("Saturday");
        break;
        case 7:printf("Kryptonday");
        break;
        case 8:printf("Coluday");
        break;
        case 9:printf("Daxamday");
        break;
    }
    return 0;
}

```