NARMADHA S

ECE - D

240801216

ProblemStatement1:

Writeaprogramtoreadtwointegervaluesandprinttrueifboththe numbers end with the same digit, otherwise print false. Example: If 698 and 768aregiven,programshouldprinttrueastheybothendwith8.

SampleInput1

2553

SampleOutput1

false

SampleInput2

2777

SampleOutput2

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! ✓

ProblemStatement2:

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

Givenaninteger,n,performthefollowingconditionalactions:

- Ifnisodd,printWeird
- Ifnisevenandintheinclusiverangeof2to5,printNotWeird
- Ifnisevenandintheinclusiverangeof6to20,printWeird

- Ifnisevenandgreaterthan20,printNotWeird

Completethestubcodeprovidedinyoureditortoprintwhetherornotnis weird.

InputFormat

Asinglelinecontainingapositiveinteger,n.

Constraints

- 1<n<100

OutputFormat

PrintWeirdifthenumberisweird;otherwise,printNotWeird. SampleInput0

3

SampleOutput0

Weird

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int n;
    scanf("%d",&n);
    if(n%2!=0){
        printf("Weird\n");

    }
    else{
        if(n>=2 && n<=5){
            printf("Not Weird\n");
        }
        else if(n>=6 && n<=20){
            printf("Weird\n");
        }
        else if(n>20){
            printf("Not Weird\n");
        }
    }
    return 0;
}
```

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

Passed all tests! ✓

ProblemStatement3:

ThreenumbersformaPythagoreantripleifthesumofsquaresoftwo numbersisequaltothesquareofthethird.Forexample,3,5and4forma Pythagoreantriple,since3*3+4*4=25=5*5Youaregiventhreeintegers, a,b,andc.Theyneednotbegiveninincreasingorder.Iftheyforma Pythagoreantriple,thenprint"yes",otherwise,print"no".Pleasenotethat theoutputmessageisinsmallletters.

SampleInput1

3

5

4

SampleOutput1

Yes

Answer: (penalty regime: 0 %)

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

	Input	Expected	Got	
✓	3 5 4	yes	yes	✓
✓	5 8 2	no	no	✓

Passed all tests! ✓

ProblemStatement4:

Writeaprogramthatdeterminesthenameofashapefromitsnumberof sides.Readthenumberofsidesfromtheuserandthenreportthe appropriatenameaspartofameaningfulmessage.Yourprogramshould supportshapeswithanywherefrom3upto(andincluding)10sides.Ifa numberofsidesoutsideofthisrangeisenteredthenyourprogramshould display an appropriate error message.

SampleInput1

3

SampleOutput1 Triangle

SampleInput2

7

SampleOutput2 Heptagon

SampleInput3

11

SampleOutput3

Thenumberofsidesisnotsupported.

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int side;
    scanf("%d",&side);
    if(side>=3 && side<=10){
        switch (side){
            case 3:
             printf("Triangle\n");
             break;

            case 4:
            printf("Quadrilateral\n");
            break;
            case 5:
            printf("Pentagon\n");
            break;
            case 6:
            printf("Hexagon\n");
            break;
            case 7:
            printf("Heptagon\n");
            break;
            case 8:
            printf("Octogon");
            break;
            case 9:
            printf("Nonagon");
            break;
            case 10:
            printf("Decagon");
            break;
        }
    }
```

```
        }
    }
    else{
        printf("The number of sides is not supported.\n");
    }
    return 0;
}
```

	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! ✓

ProblemStatement5:

TheChinesezodiacassignsanimalstoyearsina12-yearcycle.One12-year cycleisshowninthetablebelow.Thepatternrepeatsfromthere,with 2012beinganotheryearoftheDragon,and1999beinganotheryearofthe Hare.

YearAnimal 2000

Dragon

2001Snake

2002Horse

2003Sheep

2004Monkey

2005Rooster

2006Dog

2007Pig

2008Rat

2009Ox

2010Tiger

2011Hare

Writeaprogramthatreadsayearfromtheuseranddisplaystheanimal associatedwiththatyear.Yourprogramshouldworkcorrectlyforanyyear greaterthanorequaltozero,notjusttheoneslistedinthetable.

SampleInput1

2004

SampleOutput1 Monkey

SampleInput2

2010

SampleOutput2

Tiger

Answer: (penalty regime: 0 %)

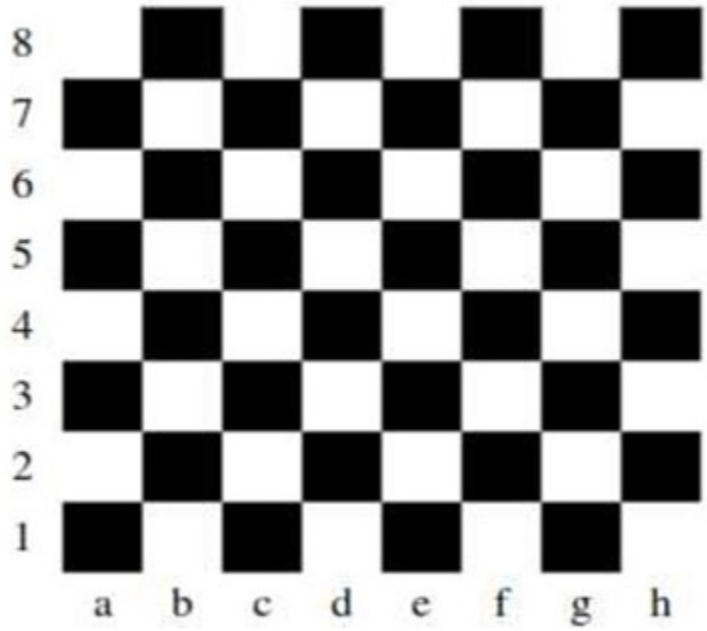
```c
#include<stdio.h>
int main(){
    int year;
    char*animals[]={"Dragon","Snake","Horse","Sheep","Monkey","Roaster","Dog","Pig","Rat","Ox","Tiger","Hare"};
    scanf("%d",&year);
    int index=(year-2000)%12;
    printf("%s\n",animals[index]);
    return 0;

}
```

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

Passed all tests! ✓

ProblemStatement6:

Positionsonachessboardareidentifiedbyaletterandanumber.The letter identifies the column, while the number identifies the row, as shown below:



Writeaprogramthatreadsapositionfromtheuser.Useanifstatementto determineifthecolumnbeginswithablacksquareorawhitesquare.Then usemodulararithmetictoreportthecolorofthesquareinthatrow.For example,iftheuserentersa1thenyourprogramshouldreportthatthe squareisblack.Iftheuserentersd5thenyourprogramshouldreportthat thesquareiswhite.Yourprogrammayassumethatavalidpositionwill alwaysbeentered.Itdoesnotneedtoperformanyerrorchecking.

SampleInput1

a1

SampleOutput1 The

square is black.

SampleInput2

d5

SampleOutput2 The

square is white.

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
#include<ctype.h>
int main(){
    char column,row;
    scanf("%c %c",&column,&row);
    column=tolower(column);
    int intial_color=(column=='a'||column=='h')?1:0;
    int square_color=(intial_color+(row-'1'))%2;
    if(square_color==1){
        printf("The square is black.\n");
    }
    else{
        printf("The square is white.\n");
    }
    return 0;
}
```

	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! ✓

ProblemStatement7:

Somedatasetsspecifydatesusingtheyearanddayofyearratherthanthe year,month,anddayofmonth.Thedayofyear(DOY)isthesequentialday numberstartingwithday1onJanuary1st.Therearetwocalendars-one fornormalyearswith365days,andoneforleapyearswith366days.Leap yearsaredivisibleby4.Centuries,like1900,arenotleapyearsunlessthey aredivisibleby400.So,2000wasaleapyear.Tofindthedayofyear numberforastandarddate,scandowntheJancolumntofindthedayof month,thenscanacrosstotheappropriatemonthcolumnandreadtheday ofyearnumber.Reversetheprocesstofindthestandarddateforagiven dayofyear.WriteaprogramtoprinttheDayofYearofagivendate,month andyear.

SampleInput1

18

6

2020

SampleOutput1

170

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int date,month,year;
    int days[]={31,28,31,30,31,30,31,31,30,31,30,31};
    scanf("%d %d %d",&date,&month,&year);
    if((year%4==0&&year%100!=0)||(year%400==0)){
        days[1]=29;
    }
    int DOT=date;
    for(int i=0;i<(month-1);i++){
        DOT += days[i];
    }
    printf("%d\n",DOT);
    return 0;
}
```

	Input	Expected	Got	
✓	18 6 2020	170	170	✓

Passed all tests! ✓

ProblemStatement8:

Suppandiistryingtotakepartinthelocalvillagemathquiz.Inthefirst 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,youwillbehelpinghimcalculatetheareaofshapes.

- Whenhesaysrectangle,heisactuallyreferringtoasquare.
- Whenhesayssquare,heisactuallyreferringtoatriangle.

- Whenhesaystriangle,heisreferringtoarectangle
- And when he is confused, he just says something random. At this point, all youcandoissay0.

HelpSuppandibyprintingthecorrectanswerinaninteger. InputFormat

- Nameofshape(alwaysinuppercaseR–>Rectangle,S–>Square,T–> Triangle)
- Lengthof1side
- Lengthofotherside

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

OutputFormat

- Printtheareaoftheshape.

SampleInput1 T

10

20

SampleOutput1

200

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    char shape;
    int side1,side2;
    scanf("%c %d %d",&shape,&side1,&side2);
    int area;
    switch(shape){
        case'R':
        area=side1*side2;
        break;
        case 'S':
        area=(side1*side2)/2;
        break;
        case 'T':
        area=side1*side2;
        break;
        default:
        area=0;
    }
    printf("%d\n",area);
    return 0;
}
```

	Input	Expected	Got	
✓	T 10 20	200	200	✓
✓	S 30 40	600	600	✓
✓	B 2 11	0	0	✓
✓	R 10 30	300	300	✓
✓	S 40 50	1000	1000	✓

Passed all tests! ✓

ProblemStatement9:

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 likeus.Instead,theyfollowa10-dayweekwiththefollowingdays:

DayNumberNameofDay

1 Sunday

2 Monday

3 Tuesday

4 Wednesday

5 Thursday

6 Friday

7 Saturday

8 Kryptonday

9 Coluday

10 Daxamday

Herearetherulesofthecalendar:

- ThecalendarstartswithSundayalways.
- Ithasonly296days.Afterthe296thday,itgoesbacktoSunday.

YoubeginyourjourneyonaSundayandwillreachaftern.Youhavetotell onwhichdayyouwillarrivewhenyoureachthere.

Inputformat:

- Containanumbern(0<n)

Outputformat:

Printthenameofthedayyouarearrivingon

SampleInput 7

SampleOutput

Kryptonday

SampleInput 1

SampleOutput

Monday

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int n;
    const char *days[]={"Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday","Kryptonday","Coluday
    scanf("%d",&n);
    int arrival_day=(n%296)%10;
    printf("%s\n",days[arrival_day]);
    return 0;
}
```

	Input	Expected	Got	
✓	7	Kryptonday	Kryptonday	✓
✓	1	Monday	Monday	✓

Passed all tests! ✓