

Test Summary

- No. of Sections: 1
- No. of Questions: 4
- Total Duration: 180 min

Section 1 - CODING

Section Summary

- No. of Questions: 4
- Duration: 180 min

Additional Instructions:

None

Q1.

**Hanging Bridge**

At the annual "KrackerJack Karnival", there was a newest attraction ever in the City, the "Hanging Bridge". Visitors will be able to walk 200ft on the bridge, hanging around 50ft above the ground, and enjoy a wide-angle view of the breathtaking greenery. The Hanging Bridge was inaugurated successfully in co-ordination with the Event Manager Rahul. There is a limit on the maximum number of people on the bridge and Rahul has to now ensure the count of people on the bridge currently should not exceed the limit. He then approximately estimated that C adults and D kids who came to the show, were on the hanging bridge. He also noticed that there are L legs of the people touching the bridge. Rahul knows that kids love to ride on the adults and they might ride on the adults, and their legs won't touch the ground and hence he would miss counting their legs. Also Rahul knew that the adults would be strong enough to ride at max two kids on their back. Rahul is now wondering whether he counted the legs properly or not. Specifically, he is wondering is there some possibility of his counting being correct. Please help Rahul in finding it.

Input Format

The only line of input contains three space separated integers C, D, L denoting number of the adults, number of the kids and number of legs of people counted by Rahul, respectively.

Output Format

Output a single line containing a string "yes" or "no" (both without quotes) according to the situation.

Sample Input

Sample Output

1 1 4

yes

Sample Input

Sample Output

2 4 16

no

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q2.

Given an integer as an input, it represents the temperature in centigrade. Determine the Weather conditions based on the temperature.

- Temperature < 0 then print "Freezing weather".
- Temperature 0 - 10 then print "Very cold weather".
- Temperature 10 - 20 then print "Cold weather".
- Temperature 20 - 30 then print "Normal in temperature".
- Temperature 30 - 40 then print "Its hot".
- Temperature >= 40 then print "Its very hot".

Input Format

The input consists of the temperature.

Output Format

The output prints the weather condition.  
Refer sample output for formatting specifications.

Sample Input

-2

Sample Output

Freezing weather

Sample Input

0

Sample Output

Very cold weather

Sample Input

4

Sample Output

Very cold weather

Sample Input

10

Sample Output

Cold weather

Sample Input

20

Sample Output

Normal in temperature

Sample Input

30

Sample Output

Its hot

Sample Input

40

Sample Output

Its very hot

Sample Input

48

Sample Output

Its very hot

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q3. Ticket types  
The Magic Castle, the home of the Academy of Magical Arts at California has organized the great 'WonderWorks Magic Show'. Renowned magicians were invited to mystify and thrill the crowd with their world’s spectacular magic tricks. The Ticket booking for the show started 2 days prior and there were different types of tickets offered with different fare. The show organizers wanted to place a scanning machine at the entrance of the venue for scrutiny. The machine will take the input of a character denoting the various ticket types and displays the equivalent ticket type of the given character.  
There are 5 types of tickets, each of which is denoted by a character (both upper case and lower case). Please find the equivalent strings for the characters.  
E or e - Early Bird Ticket  
D or d - Discount Ticket  
V or v - VIP Ticket  
S or s - Standard Ticket  
C or c - Children Ticket  
Write a piece of code for the scanning machine that will take the input of a character and print the equivalent string as given.

Input Format

The first line of the input is one of the character that denotes one of ticket types.

Output Format

Output should display the equivalent ticket type of the character.

Sample Input

Sample Output

E

Early Bird Ticket

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q4. It is IPL season and the Preity's favorite team is "Kings XI Punjab". She decided to check with Astrologer to know the performance of players in advance. Astrologer asked the zodiac sign of each player. But Preity knows only date of birth. So astrologer suggests to check the below chart and tell the zodiac sign. So Preity asked Manish, her personal assistant to do this task. Manish is good at programming and he decided to solve this using Java program. Help Manish to complete this task. Tell if there is any Invalid Date/Month.

| Zodiac Sign | Date                      |
|-------------|---------------------------|
| Aries       | March 21 - April 19       |
| Taurus      | April 20 - May 20         |
| Gemini      | May 21 - June 20          |
| Cancer      | June 21 - July 22         |
| Leo         | July 23 - August 22       |
| Virgo       | August 23 - September 22  |
| Libra       | September 23 - October 22 |
| Scorpio     | October 23 - November 21  |
| Sagittarius | November 22 - December 21 |
| Capricorn   | December 22 - January 19  |
| Aquarius    | January 20 - February 18  |
| Pisces      | February 19 - March 20    |

Input Format

The first line of the input contains a date and month number separated by space.

Output Format

Display the suitable zodiac as shown in sample output.

Constraints

1 ≤ Date ≤ 31  
1 ≤ Month ≤ 12

Sample Input

7 8

Sample Output

Astrological sign for 7-8 is Leo

Sample Input

35 7

Sample Output

Invalid Date/Month

Time Limit: 10 ms Memory Limit: 256 kb Code Size: 1024 kb

Answer Key & Solution

Section 1 - CODING

Q1

Test Case

Input

Output

|          |     |
|----------|-----|
| 10 12 44 | yes |
|----------|-----|

Weightage - 10

Input

Output

|           |     |
|-----------|-----|
| 52 80 264 | yes |
|-----------|-----|

Weightage - 15

Input

Output

|              |     |
|--------------|-----|
| 262 484 1492 | yes |
|--------------|-----|

Weightage - 20

Input

Output

|           |    |
|-----------|----|
| 25 36 620 | no |
|-----------|----|

Weightage - 10

Input

Output

|           |    |
|-----------|----|
| 86 52 758 | no |
|-----------|----|

Weightage - 15

Input

Output

|             |    |
|-------------|----|
| 888 444 666 | no |
|-------------|----|

Weightage - 20

Input

Output

|        |     |
|--------|-----|
| 3 6 18 | yes |
|--------|-----|

Weightage - 10

Sample Input

Sample Output

1 1 4

yes

Sample Input

Sample Output

2 4 16

no

Solution

```
import java.util.*;
import java.io.*;
class Hangingbridge {
    public static void main(String [] args) {
        int c,d,l;
        Scanner sc = new Scanner(System.in);
        c = sc.nextInt();
        d = sc.nextInt();
        l = sc.nextInt();
        c = (c+d)*2;
        if(c == l) {
            System.out.println("yes");
        }
        else {
            System.out.println("no");
        }
    }
}
```

Q2

Test Case

Input

Output

-4

Freezing weather

Weightage - 10

Input

Output

6

Very cold weather

Weightage - 10

Input

Output

44

Its very hot

Weightage - 20

Input

Output

|    |              |
|----|--------------|
| 16 | Cold weather |
|----|--------------|

Weightage - 20

Input

Output

|    |                       |
|----|-----------------------|
| 28 | Normal in temperature |
|----|-----------------------|

Weightage - 20

Input

Output

|    |         |
|----|---------|
| 33 | Its hot |
|----|---------|

Weightage - 20

Sample Input

Sample Output

|    |                  |
|----|------------------|
| -2 | Freezing weather |
|----|------------------|

Sample Input

Sample Output

|   |                   |
|---|-------------------|
| 0 | Very cold weather |
|---|-------------------|

Sample Input

Sample Output

|   |                   |
|---|-------------------|
| 4 | Very cold weather |
|---|-------------------|

Sample Input

Sample Output

|    |              |
|----|--------------|
| 10 | Cold weather |
|----|--------------|

Sample Input

Sample Output

|    |                       |
|----|-----------------------|
| 20 | Normal in temperature |
|----|-----------------------|

Sample Input

Sample Output

|    |         |
|----|---------|
| 30 | Its hot |
|----|---------|

Sample Input

Sample Output

40

Its very hot

Sample Input

Sample Output

48

Its very hot

Solution

```
import java.io.*;
import java.util.*;
class Main {
    public static void main(String [] args) {
        int temp;
        Scanner sc = new Scanner(System.in);
        temp = sc.nextInt();
        if(temp<0)
            System.out.println("Freezing weather");
        else if(temp>=0 && temp<10)
            System.out.println("Very cold weather");
        else if(temp>=10 && temp<20)
            System.out.println("Cold weather");
        else if(temp>=20 && temp<30)
            System.out.println("Normal in temperature");
        else if(temp>=30 && temp<40)
            System.out.println("Its hot");
        else if(temp>=40)
            System.out.println("Its very hot");
    }
}
```

Q3

Test Case

Input

Output

e

Early Bird Ticket

Weightage - 10

Input

Output

E

Early Bird Ticket

Weightage - 10

Input

Output

d

Discount Ticket

|  |  |
|--|--|
|  |  |
|--|--|

Weightage - 10

| Input | Output          |
|-------|-----------------|
| D     | Discount Ticket |

Weightage - 10

| Input | Output     |
|-------|------------|
| v     | VIP Ticket |

Weightage - 10

| Input | Output     |
|-------|------------|
| V     | VIP Ticket |

Weightage - 10

| Input | Output          |
|-------|-----------------|
| s     | Standard Ticket |

Weightage - 10

| Input | Output          |
|-------|-----------------|
| S     | Standard Ticket |

Weightage - 10

| Input | Output          |
|-------|-----------------|
| c     | Children Ticket |

Weightage - 10

| Input | Output          |
|-------|-----------------|
| C     | Children Ticket |

Weightage - 10



Sample Input

Sample Output

E

Early Bird Ticket

Solution

```
import java.io.*;
import java.util.*;
class Tickettypes {
    public static void main(String [] args) {
        char type;
        Scanner sc = new Scanner(System.in);
        type = sc.next().charAt(0);
        switch(type) {
            case 'e':
                System.out.println("Early Bird Ticket");
                break;
            case 'E':
                System.out.println("Early Bird Ticket");
                break;
            case 'd':
                System.out.println("Discount Ticket");
                break;
            case 'D':
                System.out.println("Discount Ticket");
                break;
            case 'v':
                System.out.println("VIP Ticket");
                break;
            case 'V':
                System.out.println("VIP Ticket");
                break;
            case 's':
                System.out.println("Standard Ticket");
                break;
            case 'S':
                System.out.println("Standard Ticket");
                break;
            case 'c':
                System.out.println("Children Ticket");
                break;
            case 'C':
                System.out.println("Children Ticket");
                break;
        }
    }
}
```

Q4

Test Case

Input

Output

21 3

Astrological sign for 21-3 is Aries

Weightage - 15

| Input | Output                              |
|-------|-------------------------------------|
| 19 4  | Astrological sign for 19-4 is Aries |

Weightage - 15

| Input | Output                                 |
|-------|--|
| 1 1   | Astrological sign for 1-1 is Capricorn |

Weightage - 10

| Input | Output                               |
|-------|--------------------------------------|
| 22 6  | Astrological sign for 22-6 is Cancer |

Weightage - 10

| Input | Output                               |
|-------|--------------------------------------|
| 23 4  | Astrological sign for 23-4 is Taurus |

Weightage - 10

| Input | Output                                 |
|-------|--|
| 25 10 | Astrological sign for 25-10 is Scorpio |

Weightage - 10

| Input | Output                                     |
|-------|--|
| 25 11 | Astrological sign for 25-11 is Sagittarius |

Weightage - 10

| Input | Output                               |
|-------|--------------------------------------|
| 29 5  | Astrological sign for 29-5 is Gemini |

Weightage - 10

| Input | Output |
|-------|--------|
|-------|--------|

|      |                                     |
|------|-------------------------------------|
| 21 9 | Astrological sign for 21-9 is Virgo |
|------|-------------------------------------|

Weightage - 10

Sample Input

Sample Output

|     |                                  |
|-----|----------------------------------|
| 7 8 | Astrological sign for 7-8 is Leo |
|-----|----------------------------------|

Sample Input

Sample Output

|      |                    |
|------|--------------------|
| 35 7 | Invalid Date/Month |
|------|--------------------|

Solution

```
import java.util.Scanner;
class Example {
    public static void main (String[] args) {
        Scanner input = new Scanner(System.in) ;
        int day = input.nextInt();
        int month =input.nextInt();
        String sign="";

        if((day<1) ||(day>31) || (month<1) ||(month>12))
            System.out.print("Invalid Date/Month");
        else
        {
            if (month == 1) {
                if (day < 20)
                    sign = "Capricorn";
                else
                    sign = "Aquarius";
            } else if (month == 2) {
                if (day < 19)
                    sign = "Aquarius";
                else
                    sign = "Pisces";
            } else if(month == 3) {
                if (day < 21)
                    sign = "Pisces";
                else
                    sign = "Aries";
            } else if (month == 4) {
                if (day < 20)
                    sign = "Aries";
                else
                    sign = "Taurus";
            } else if (month == 5) {
                if (day < 21)
                    sign = "Taurus";
                else
                    sign = "Gemini";
            } else if( month == 6) {
                if (day < 21)
                    sign = "Gemini";
                else
                    sign = "Cancer";
            } else if (month == 7) {
```

```
        if (day < 23)
            sign = "Cancer";
        else
            sign = "Leo";
    } else if( month == 8) {
        if (day < 23)
            sign = "Leo";
        else
            sign = "Virgo";
    } else if (month == 9) {
        if (day < 23)
            sign = "Virgo";
        else
            sign = "Libra";
    } else if (month == 10) {
        if (day < 23)
            sign = "Libra";
        else
            sign = "Scorpio";
    } else if (month == 11) {
        if (day < 22)
            sign = "scorpio";
        else
            sign = "Sagittarius";
    } else if (month == 12) {
        if (day < 22)
            sign = "Sagittarius";
        else
            sign ="Capricorn";
    }
    System.out.print("Astrological sign for " + day + "-" + month + " is " + sign );
}
}
}
```