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Paper # Object oriented
programming (Lab)

Department # Computer
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Ques How to calculate parameter
of triangle in java using
object oriented approach?

Ans // Java program to find parameter
of triangle

```
class test {  
    static float find parameter (  
        float a, float b, float c)  
    {  
        // formul for parameter of triangle.  
        return (a + b + c);  
    }  
}
```

(2)

// Driver method

```
public static void main (String [] args)
{
```

```
float a = 5, b = 7, c = 8;
```

```
System.out.println ("find parameter  
(a, b, c)");
```

```
}
```

Output

20.

QNo2

How to calculate diameter of a circle in java using object oriented approach?

Ans

// Program to find circle radius, Diameter

```
import java.util.Scanner
```

```
public class circle {
```

```
public static void main (String [] args)
```

```
{
```

```
/* input radius of a circle from user*/
```

```
System.out.println ("Enter radius of the  
circle:");
```

(3)

```
int r = in.nextInt();
```

```
/* calculate diameter of a circle */
```

```
int d = 2 * r;
```

```
/* Print radius, diameter of a circle */
```

```
System.out.println("Diameter of  
circle is: " + d);
```

```
}
```

```
}
```

Output

→

Enter radius of a circle is:

5

diameter of a circle is:

$2 \times 5 = 10$

(4)

Q No 3

How to check leap year in java using object oriented approach?

Ans

```
import java.util.scanner;  
class Leap year  
{  
    public static void main (String  
        args[])  
    {  
        long x,y,z;  
        Scanner sc = new Scanner  
            (System.in);  
        System.out.print ("enter any calendar  
            year:");  
        y = sc.next long();  
        if (y != 0)  
        {  
            x = (y % 400 == 0) ? (z = 1) : ((y % 100 == 0) ?  
            (z = 0) : ((y % 4 == 0) ? (z = 1) : (z = 0)));  
            if (x == 1)  
            {  
                System.out.println (y + " is a leap  
                    year");  
            }  
            else  
                System.out.println (y + " is not a  
                    leap Year");  
        }  
    }  
}
```

5

```
}  
}  
else  
    System.out.println ("Year zero  
                           does not exist");  
}  
}
```

Output

enter any calendar Year:

2020

2020 is a leap year

OR

enter any calendar Year: 2019

2019 is not a leap year.

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Q No 4 How to check that the user is the vowel or not in java using object oriented approach?

Ans

```
import java.util.Scanner;
```

```
class char
{
    void findVowelOrNot (char ch)
    {
        if (ch == 'a' || ch == 'e' || ch == 'i' ||
            ch == 'o' || ch == 'u' || ch == 'A' ||
            ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U')
            else if
            {
                System.out.println ("Entered
                    character " + ch + " is vowel");
            }
        else if ((ch >= 'a' && ch <= 'z') ||
            (ch >= 'A' && ch <= 'Z'))
            System.out.println ("Entered character
                " + ch + " is consonant");
        else
            System.out.println ("Not an alphabet");
    }
}
```

(7)

```
public static void main (String []  
args)  
{  
    char c = new char ();  
    Scanner sc = new Scanner (System.in);  
    System.out.println ("Enter a  
character: ");  
    charin = sc.next ().charAt (0)  
    (. find vowel or not (in));  
}  
}
```

Output

Enter a character:

A

Entered character A is vowel -

OR

Enter a character:

B

Entered character B is consonant.

(8)

Q No5 How to use a number of power power of a number in java using object oriented approach?

Ans

```
Public class power {  
Public static void main (String [] args)  
{  
int base=2, exponent=3;  
long result = 1;  
while (exponent != 0)  
{  
result *= base;  
--exponent;  
}  
System.out.println ("Answer = "  
+ result);  
}  
}
```

Output

8