**Practical 3**

**Write a program to find area of circle, square, triangle and rectangle and perform equivalence class testing**

**Code:**

#include<stdio.h>

int main()

{

int a = 0, b = 0, i, temp;

float temp2;

while(1)

{

printf("Enter a: ");

scanf("%d", &a);

printf("Enter b: ");

scanf("%d", &b);

if(a == 0 && b == 0)

{

printf("Domain Error\n\n");

}

else if (a == 0 && b != 0)

{

printf("Answer: %d\n\n", 0);

}

else if(a != 0 && b == 0)

{

printf("Answer: %d\n\n", 1);

}

else if(b > 0)

{

temp = a;

for(i = 1; i < b; i++)

{

temp \*= a;

}

printf("Answer: %d\n\n", temp);

}

else

{

temp2 = (1.00/a);

b = -1 \* b;

for(i = 1; i < b; i++)

{

temp2 \*= (1.00/a);

}

printf("Answer: %f\n\n", temp2);

}

}

return 0;

}

**Conditions are:**

C1: a = 0, b = 0

C2: a = -ve, b = +ve even int

C3: a = +ve, b = -ve

C4: a = -ve, b = -ve even int

C5: a = +ve, b = +ve

C6: a = 0, b = int

C7: b = 0, a = int

C8: a = -ve, b = +ve odd int

C9: a = -ve, b = -ve odd int

**Actions:**

A1: Domain error

A2: Negative output

A3: Output =1

A4: Positive output

A5: Output = 0

Table, calendar

Description automatically generated