Experiment :-2a

SIMPLE CALCULATOR

**ALGORITHM**

Step 1: Start

Step 2: Declare and define functions add, subtract, multiply and divide   
Step 3: Declare variables num1, num2, ans and c.

Step 4: Read values num1, num2 and arithmetic operation.

Step 5: Read arithmetic operation.  
 Case ‘+’ – call “add” function which returns (ans=num1+num2)

Case ‘-’ – call “subtract” function which returns (ans=num1-num2)

Case ‘\*’ – call “multiply” function which returns (ans=num1\*num2)

Case ‘/’ – call “divide” function which return (ans=num1/num2)

Step 6: Display result

Step 7: Stop

**Program**

#include<stdio.h>

#include<math.h>

void display(float s)//function to display result Ans

{

printf("Ans: %.2f \n",s);

}

float add(int x,int y)//function to add two numbers

{

return x+y;

}

float subtract(int x, int y)//function to subtract two numbers

{

return x-y;

}

float multiply(int x,int y)//function to multiply two numbers

{

return x\*y;

}

float divide(int x,int y)//function to divide one number by other

{

if(y!=0) return (float)x/y;

else return 0.0;

}

float power(int x,int y)//function to find power

{

return pow(x,y);

}

float squareroot(int x)//function to find square of two numbers

{

return sqrt(x);

}

int main()

{

int a,b;

float ans;

unsigned char c;

while(1)

{

printf("\nEnter the two numbers : ");//input two numbers

scanf("%d %d", &a,&b);

printf("Enter the operation (+,-,\*,/,^,s) \t\tPress e to exit\n: ");//input operation

scanf(" %c",&c);

switch(c)//switch to entered operation

{

case '+': ans=add(a,b);

break;

case '-': ans=subtract(a,b);

break;

case '\*': ans=multiply(a,b);

break;

case '/': ans=divide(a,b);

break;

case '^': ans=power(a,b);

break;

case 's': ans=squareroot(a);

break;

case 'e': exit(0);

default: printf("Invalid Operation\n");

}

display(ans);

}

return 0;

}

**Sample input output**

