1- Write a program to check whether two numbers (entered by user) are equal or not (0 for not equal, 1

for equal)

Ans. #include <iostream>

using namespace std;

int main()

{

int x,y;

cout<<"Enter the first number ";

cin >> x;

cout<<"Enter the second number ";

cin >> y;

cout << (x == y) ? 1:0 ;

return 0

}

2 - Write a program to take the values of two variables a and b from the keyboard and then check if both the

conditions 'a < 50' and 'a < b' are true.

Ans. #include <iostream>

using namespace std;

int main()

{

int a,b;

cout << "Enter the first number : ";

cin >> a;

cout << "Enter the second number : ";

cin >> b;

cout<< ((a < 50) && (a < b))?1:0;

return 0;

}

3There are 45 total pupils in the class, 25 of whom are boys. Write a program to find how many girls

received grades "A" if 17 boys made up 80% of the students that received grades "A".

Ans. #include <iostream>

using namespace std;

int main()

{

int total, boys, girls;

boys = 17;

total = (80\*45)/100; //total students getting grade A

girls = total - boys; //total number of girls getting grade A

cout << "Number of girls getting grade A = " << girls << endl;

return 0;

}

4-Write a program to calculate the sum of the first and the second last digit of a 5 digit number.

Ans. #include <iostream>

using namespace std;

int main()

{

int n, first, second, third, fourth, fifth, sum;

n = 12345;

/Take out each digit of this number and then finally add the first and the second last digits/

first = n/10000; //first digit

n = n%10000;

second = n/1000; //second digit

n = n%1000;

third = n/100; //third digit

n = n%100;

fourth = n/10; //fourth digit

fifth = n%10; //fifth digit

sum = first + fourth;

cout << "sum of first and fourth digit is: " << sum << endl;

return 0;

}

5.write a program to calculate the sum of digits of a 3 digit number.

Ans. #include <iostream>

using namespace std;

int main()

{

int n, first, second, third,sum;

n = 524;

/Take out each digit of this number and then finally add the digits/

first = n/100; //first digit

n = n%100;

second = n/10; //second digit

third = n%10; //third digit

sum = first + second + third;

cout << "sum of 3 digits is: " << sum << endl;

return 0;

}

6-Design a calculator to perform basic arithmetic operations (+,-,/,\*)

Ans. # include <iostream>

using namespace std;

int main() {

float num1, num2;

cout << "Enter the first number ";

cin >> num1;

cout << "Enter the second number ";

cin >> num2;

cout << "Sum = " << num1 + num2<<endl;

cout <<"Difference = " << num1 - num2<<endl;

cout <<"Product = " << num1 \* num2<<endl;

cout << "Division = " << num1 / num2<<endl;

return 0;

}