Assignment - 2 (Operators in C Language)

1. Write a program to print unit digit of a given number

#include<stdio.h>

int main()

{

int number;

printf("Enter a number to print its unit digit: ");

scanf("%d", &number);

printf("Unit digit of %d is %d.", number, number % 10);

return 0;

}

2. Write a program to print a given number without its last digit.

#include<stdio.h>

int main()

{

int number;

printf("Enter a number to print it without its last digit: ");

scanf("%d", &number);

printf("Number %d without last digit is %d.", number, number / 10);

return 0;

}

3. Write a program to swap values of two int variables

#include<stdio.h>

int main()

{

int num1, num2, c;

printf("Enter two numbers to swap: ");

scanf("%d %d", &num1, &num2);

printf("Before swapping, variable values are: first number = %d and second number = %d.", num1, num2);

c = num1;

num1 = num2;

num2 = c;

printf("\nAfter swapping, variable values are: first number = %d and second number = %d.", num1, num2);

return 0;

}

4. Write a program to swap values of two int variables without using a third variable.

#include<stdio.h>

int main()

{

int num1, num2;

printf("Enter two numbers to swap: ");

scanf("%d %d", &num1, &num2);

printf("Before swapping, variable values are: first number = %d and second number = %d.", num1, num2);

num1 = num1 + num2;

num2 = num1 - num2;

num1 = num1 - num2;

printf("\nAfter swapping, variable values are: first number = %d and second number = %d.", num1, num2);

return 0;

}

5. Write a program to input a three-digit number and display the sum of the digits.

#include<stdio.h>

int main()

{

int number, x, digitsSum = 0;

printf("Enter a number: ");

scanf("%d", &number);

x = number;

while(x)

{

digitsSum = digitsSum + x % 10;

x /= 10;

}

printf("Sum of digits of %d is %d.", number, digitsSum);

return 0;

}

6. Write a program which takes a character as an input and displays its ASCII code.

#include<stdio.h>

int main()

{

char character;

printf("Enter a character to check its ascii code: ");

scanf("%c", &character);

printf("Ascii code of character %c is %d.", character, character);

return 0;

}

7. Write a program to find the position of first 1 in LSB.

#include<stdio.h>

int main()

{

int number, q, positionOfFirst1InLSB = 1;

printf("Enter a number to find position of first 1 in LSB: ");

scanf("%d", &number);

q = number;

while(q % 2 == 0)

{

q = q / 2;

positionOfFirst1InLSB++;

}

printf("Position of first 1 in LSB is %d.", positionOfFirst1InLSB);

return 0;

}

8. Write a program to check whether the given number is even or odd using a bitwise operator.

#include<stdio.h>

int main()

{

int number;

printf("Enter a number to check whether the number is even or odd: ");

scanf("%d", &number);

if(number & 1)

printf("%d is an odd number.", number);

else

printf("%d is an even number.", number);

return 0;

}

9. Write a program to print size of an int, a float, a char and a double type variable

#include<stdio.h>

int main()

{

int var;

printf("Enter a value to check its size: ");

scanf("%d", &var);

printf("Size of entered value %d is %d.", var, sizeof(var));

return 0;

}

10. Write a program to make the last digit of a number stored in a variable as zero. (Example - if x=2345 then make it x=2340)

#include<stdio.h>

int main()

{

int number;

printf("Enter a number to change its last digit to zero: ");

scanf("%d", &number);

number = number / 10 \* 10;

printf("Number after changing the last digit to zero now becomes %d.", number);

return 0;

}

11. Write a program to input a number from the user and also input a digit. Append a digit in the number and print the resulting number. (Example - number=234 and digit=9 then the resulting number is 2349)

#include<stdio.h>

int main()

{

int number, digit;

printf("Enter a number and a digit to append to this number: ");

scanf("%d %d", &number, &digit);

number = number \* 10 + digit;

printf("Resulting number after appending digit to current number is %d.", number);

return 0;

}

12. Assume price of 1 USD is INR 76.23. Write a program to take the amount in INR and convert it into USD.

#include<stdio.h>

int main()

{

double amount;

printf("Enter amount in INR to convert it into USD: ");

scanf("%lf", &amount);

printf("INR %lf is %lf USD.", amount, amount / 76.23);

return 0;

}

13. Write a program to take a three-digit number from the user and rotate its digits by one position towards the right.

#include<stdio.h>

int main()

{

int number;

printf("Enter a 3 digit number to rotate number digits by one position towards right: ");

scanf("%d", &number);

printf("Number %d after rotating its digits by 1 position towards right is %d.", number, number % 10 \* 100 + number / 10);

return 0;

}