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***C PROGRAMMING HOMEWORK ONE***

1. Draw a flowchart to add two numbers entered by user.

#include <stdio.h>

int main()

{

int a,b;

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

printf("%d", a + b );

return 0;

}

1. Calculate the area of a circle with given radius.

#include <stdio.h>

int main()

{

float radius, PI , Area ;

printf("radius");

scanf("%f", &radius );

printf("PI");

scanf("%f", &PI );

Area = PI \* radius \* radius;

printf("Area %f ", Area);

return 0;

}

sencond way//

#include <stdio.h>

#include <math.h>

int main()

{

double radius, area;

printf("radius");

scanf("%lf", &radius );

area = M\_PI \* pow(radius, 2);

printf(" area %lf", area);

return 0;

}

1. Determine and Output Whether Number N is Even or Odd.

#include <stdio.h>

#include <math.h>

int main()

{

int number;

printf("number");

scanf("%d", &number );

if(number % 2 == 0 )

printf("Even");

else

printf("Odd");

return 0;

}

1. Determine Whether a Temperature is Below or Above the Freezing Point.

#include <stdio.h>

int main()

{

int temperature;

printf("temprature");

scanf("%d", &temperature );

if( temperature > 0)

printf("above freezing pint");

else if (temperature <= 0)

printf ("below freezing point ");

return 0;

}

5. Convert Temperature from Fahrenheit (℉) to Celsius (℃).

#include <stdio.h>

int main()

{

int fahrenheit , celsius;

printf("fahrenheit\a\t");

scanf("%d", &fahrenheit);

celsius = (fahrenheit - 32) \* 5/9 ;

printf("celsius %d", celsius);

return 0;

}

1. Write an algorithm and draw a flowchart to convert the length in feet to centimeter.

#include <stdio.h>

int main()

{

float feet,centimeter;

printf("feet");

scanf("%f", &feet );

//to get cm multiply the length value by 30.48

centimeter = feet \* 30.48 ;

printf("centimeter %f", centimeter);

return 0;

}

7. Write an algorithm and draw a flowchart to print the square of all numbers from 1 to10.

#include <stdio.h>

int main()

{

int i=1, n ;

printf("display square of 1 to 10");

while( i<=10)

{

n = i\*i;

printf("\t %d", n );

i++;

}

return 0;

}

8. Write an algorithm and draw a flowchart to print the SUM of numbers from LOW to HIGH. Test with LOW=3 and HIGH=9.

#include <stdio.h>

int main()

{

// low=3, a is for number

int a = 3, sum =0;

printf(" number of 3 to 9");

// high = 9

while(a<=9)

{

sum+= a;

printf("\a\t %d", sum);

a++;

}

return 0;

}

10.Draw a flowchart to find the largest of three numbers A, B, and C.

#include <stdio.h>

int main()

{

// A,B,C is the three numbers

int A, B, C ;

printf(" \t\a A, \t B, \t C");

scanf( "%d %d %d", &A, &B, &C);

// to decide which one is largest

if ( A > B , A> C)

printf(" \t A is largest");

if ( B>C)

printf(" \t B is largest");

else

printf(" \t C is largest");

return 0;

}

11. Draw a flowchart for a program that reads 10 numbers from the user and

prints out their sum, and their product

#include <stdio.h>

#include <math.h>

int main()

{

int number, counter=1, sum=0, product=1 ;

printf("enter 10 numbers");

while(counter<=10)

{ printf("\t number \t");

scanf("%d", &number);

sum = sum + number;

product= product\*number;

printf("\t sum %d, product \t %d", sum, product);

counter++;

}

return 0;

}

13.Write an algorithm and draw a flowchart to print the multiplication table for 6's.

#include <stdio.h>

int main()

{

// m for multiplication

int i=1, m ;

while (i<=10)

{

m = 6\*i;

printf("%d\a\n ", m );

i++;

}

return 0;

}

15.Draw a flow chart to print all natural numbers in reverse (from n to 1).

#include <stdio.h>

#include <math.h>

int main()

{

int number;

printf("enter number ");

scanf("%d", &number);

while( number>=1)

{ printf("\t %d", number);

number--;

}

return 0;

}

14.Draw a flowchart for computing factorial N (N!)

#include <stdio.h>

#include <math.h>

int main()

{

int i=1, fact=1, number;

printf("enter number\t\n");

scanf("\t %d", &number);

while(i<= number)

{

fact = fact\*i;

printf("\t\a %d", fact);

i++;

}

return 0;

}

18.Design an algorithm to convert a decimal number, n, to binary format?

#include<stdio.h>

#include<stdlib.h>

int main(){

int a[10],n,i;

printf("Enter the number to convert: ");

scanf("%d",&n);

for(i=0;n>0;i++)

{

a[i]=n%2;

n=n/2;

}

printf("\nBinary of Given Number is=");

for(i=i-1;i>=0;i--)

{

printf("%d",a[i]);

}

return 0;

}

19.Draw a flow chart to print multiplication table of any number.

#include <stdio.h>

int main()

{

int i = 1, number, m ;

printf("enter number ");

scanf("%d", &number);

while(i<=10)

{

m = number \* i;

printf("%d\n\t\a", m);

i++;

}

return 0;

}

21.Draw a flow chart to find first and last digit of a number

#include <stdio.h>

int main()

{

int n , firstdigit, lastdigit;

printf("enter number");

scanf("%d", &n);

lastdigit = n%10;

while(n>=10)

{

n= n/10;

}

firstdigit = n;

printf(" firstdigi = %d\n\a", firstdigit);

printf("last digit = %d\n\a", lastdigit);

return 0;

}

23.Draw a flow chart to check whether a number is palindrome or not.

#include <stdio.h>

int main()

{

int original, reversed=0, remainder, n;

printf("enter an integer please");

scanf("%d", &n);

original = n;

while (n!=0)

{

remainder = n%10 ;

reversed = reversed\*10 + remainder ;

n = n/10;

}

if (original == reversed)

printf("%d is palindrone number", original);

else

printf(" %d is not palindrome number", original);

return 0;

}

25.Draw a flow chart to find HCF (Highest Common Factor) of two numbers

#include <stdio.h>

int main()

{

int a, b, i, min ,hcf ;

printf("enter two number");

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

min = (a<b)? a:b;

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

{

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

{

hcf =i;

}

}

printf(" hcf = %d\t\a ", hcf );

return 0;

}

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