#equality check

#include<stdio.h>

int main(){

int a,b;

printf("enter 2 numbers");

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

if(a==b){

printf("both are equal");

}else{

printf("both are not equal");

}

return 0;

}

#greater number

#include<stdio.h>

int main(){

int a,b;

printf("enter 2 numbers");

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

if(a>b){

printf("%d is greater",a);

}else{

printf("%d is greater",b);

}

return 0;

}

#positive number

#include<stdio.h>

int main(){

int a;

printf("enter a number");

scanf("%d",&a);

if(a>0){

printf("the entered number is positive");

}

else{

printf("the entered number is negative");

}

return 0;

}

#rectangle validity

#include<stdio.h>

int main(){

int length,breadth;

printf("enter the length & breadth");

scanf("%d%d",&length,&breadth);

if(a>0 && b>0){

printf("entered rectangle is valid");

}else{

printf("not a valid traingle");

}

}

#pass or fail

#include<stdio.h>

int main(){

int a;

printf("enter the grade");

scanf("%d",&a);

if(a>=40){

printf("passed");

}

else{

printf("failed");

}

return 0;

}

#number in the range

#include<stdio.h>

int main(){

int a;

printf("enter the number");

scanf("%d",&a);

if(a>10 && a<50){

printf("within the range");

}

else{

printf("Not in the range");

}

return 0;

}

#verify alphabet

#include<stdio.h>

int main(){

char ch;

printf("enter the char");

scanf("%c",&ch);

if(ch>'a' && ch<'z'){

printf("within the range");

}

else{

printf("Not in the range");

}

return 0;

}

#age comparison

#include<stdio.h>

int main(){

int age1,age2;

printf("enter 2 ages");

scanf("%d%d",&age1,&age2);

if(age1>age2){

printf("age1 is greater");

}else if(age2>age1){

printf("age 2 is greater");

}else{

printf("Equal ages");

}

}

#weight check

#include<stdio.h>

int main(){

int a;

printf("enter the weight");

scanf("%d",&a);

if(a>50){

printf("failed");

}

else{

printf("passed");

}

return 0;

}

#compare the rectangles

#include<stdio.h>

int main(){

int l1,b1,l2,b2;

printf("enter the length and breadth for rectangle1");

scanf("%d%d",&l1,&b1);

int a1=l1\*b1;

printf("enter the length and breadth for rectangle2");

scanf("%d%d",&l2,&b2);

int a2=l2\*b2;

if(a1>a2){

printf("rectangle 1 is larger");

}else{

printf("rectangle 2 is larger");

}

}

-------------------------------------

\*bitwise AND

#include<stdio.h>

int main(){

int a,b;

printf("enter 2 numbers");

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

printf("the result of AND operation = %d",a&b);

}

\*biwise OR

#include<stdio.h>

int main(){

int a,b;

printf("enter 2 numbers");

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

printf("the result of OR operation = %d",a|b);

}

#biwise XOR

#include<stdio.h>

int main(){

int a,b;

printf("enter 2 numbers");

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

printf("the result of XOR operation = %d",a^b);

}

#biwise NOT

#include<stdio.h>

int main(){

int a;

printf("enter a number");

scanf("%d",&a);

printf("the result of complement operation = %d",~a);

}

#5

#include <stdio.h>

int main() {

int n, p;

printf("Enter an integer: ");

scanf("%d", &n);

printf("Enter the position to toggle the bit: ");

scanf("%d", &p);

int m = 1 << p;

n = n ^ m;

printf("The new number after toggling the bit at position %d is: %d\n", p, n);

return 0;

}

#6

#include <stdio.h>

int main() {

int n, p;

printf("Enter an integer: ");

scanf("%d", &n);

printf("Enter the position to set the bit to 1: ");

scanf("%d", &p);

int m = 1 << p;

n = n | m;

printf("The new number after setting the bit at position %d to 1 is: %d\n", p, n);

return 0;

}

#7

#include <stdio.h>

int main() {

int n, p;

printf("Enter an integer: ");

scanf("%d", &n);

printf("Enter the position to clear the bit: ");

scanf("%d", &p);

int m = ~(1 << p);

n = n & m;

printf("The new number after clearing the bit at position %d is: %d\n", p, n);

return 0;

}

-----------------------------------------------------

#1

#include<stdio.h>

int main(){

int num;

printf("enter a number");

scanf("%d",&num);

if(num>50 && num%5==0){

printf("given integer is greater than 50 and multiple of 5\n");

}else{

printf("the gievn integer doesnot satisfy the criteria\n");

}

if(num&1==1){

printf("The least significant bit of is set");

}else{

printf("The least significant bit is not set");

}

}

#2

#include<stdio.h>

int main(){

int n,a;

printf("enter the number");

scanf("%d",&n);

printf("enter the position");

scanf("%d",&a);

int m =1<<a;

n=n^m;

printf("the output after toggling is %d\n",n);

if(n>0 && n%2==0){

printf("toggled number is positive number and divisible by 2\n");

}else{

printf("toggled number is either not positive or not divisble by 2");

}

}

#3

#include<stdio.h>

int main(){

int age;

int verification=0;

printf("enter your age");

scanf("%d",&age);

if(age>=18){

int id;

printf("enter your id number");

scanf("%d",&id);

int mask=1<<0;

if((mask&id)!=verification){

printf("eligible to vote");

}else{

printf("not eligible to vote");

}

}else{

printf("not eligible to vote");

}

}

#4

#include<stdio.h>

int main(){

int n, pos, dec, range;

printf("Enter 1 to set the bit\nEnter 2 to clear the bit: ");

scanf("%d", &dec);

if(dec == 1) {

printf("Enter the number and position to set the bit: ");

scanf("%d %d", &n, &pos);

int mask = 1 << pos;

n = n | mask;

printf("After setting the bit, the value is: %d\n", n);

printf("Enter a range: ");

scanf("%d", &range);

if (n % 2 != 0 && (n > 0 && n < range)) {

printf("The number is odd and is in the given range.\n");

} else {

printf("The number does not meet the criteria.\n");

}

} else if(dec == 2) {

// Clear the bit

printf("Enter the number and position to clear the bit: ");

scanf("%d%d", &n, &pos);

int mask = ~(1 << pos);

n = n & mask;

printf("After clearing the bit, the value is: %d\n", n);

printf("Enter a range: ");

scanf("%d", &range);

if (n % 2 != 0 && (n > 0 && n < range)) {

printf("The number is odd and is in the given range.\n");

} else {

printf("The number does not meet the criteria.\n");

}

} else {

printf("Enter a valid option.\n");

}

return 0;

}

#5

#include<stdio.h>

int main() {

int a, b, sum, pro;

printf("Enter 2 numbers: ");

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

sum = a + b;

pro = a \* b;

if (sum > 100 && pro % 4 == 0) {

printf("Meets the criteria\n");

int mask = 1 << 1;

if (a & mask) {

printf("Second bit set to 1\n");

} else {

printf("Second bit not set\n");

}

} else {

printf("Doesn't meet the criteria\n");

}

return 0;

}

----------------------------------control statements---------------

#1

#include<stdio.h>

int main(){

int a;

printf("enter a number");

scanf("%d",&a);

if(a>0){

printf("positive number")

}else if(n<0){

printf("negative number")

}else{

printf("zero");

}

}

#2

#include<stdio.h>

int main(){

int a;

printf("enter a number");

scanf("%d",&a);

if(a%3==0){

printf("divisible");

}else{

printf("not divisible");

}

}

#3

#include<stdio.h>

int main(){

int a;

printf("enter a number");

scanf("%d",&a);

if(a%2==0){

printf("even");

}else{

printf("odd");

}

}

#4

#include<stdio.h>

int main(){

int a;

printf("enter the marks");

scanf("%d",&a);

if(a>=40){

printf("pass");

}else{

printf("fail");

}

}

#5

#include<stdio.h>

int main(){

int a,b,c;

printf("enter the 3 sides of triangle\n");

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

if(a>0 && b>0 &&c>0){

printf("valid triangle\n");

if(a==b && a==c){

printf("Equilateral traingle\n");

}else{

printf("not an equillateral triangle");

}

}else{

printf("Not a valid traingle");

}

}

#6

#include<stdio.h>

int main()

{

int mp,mm;

printf("enter the marks in mathematics");

scanf("%d",&mm);

printf("enter the marks in physics");

scanf("%d",&mp);

if(mp&&mm>=50){

int total=mp+mm;

if(total>=120){

printf("eligible");

}else{

printf("Not eligible");

}

}else{

printf("not eligible");

}

}

#7

#include<stdio.h>

int main(){

int marks;

printf("enter the marks");

scanf("%d",&marks);

if(marks>=90){

printf("Grade A");

}

else if(marks>=75){

printf("Grade B");

}

else if(marks>=50){

printf("Grade C");

}

else if(marks<50){

printf("fail");

}

else{

printf("enter a valid input")

}

}

#8

#include<stdio.h>

int main(){

int n;

printf("enter a number");

scanf("%d",&n);

if(n>0){

printf("positive");

}else if(n<0){

printf("negative");

}else{

printf("zero");

}

}

#9

#include<stdio.h>

int main(){

int units;

printf("enter the bill units");

scanf("%d",&units);

if(units<=100){

units\*=5;

}else if(units<=200 && units>100){

units\*=7;

}else if(units>200){

units\*=10;

}else{

printf("enter a valid amount or unit");

}

printf("total amount=%d",units);

}

#10

#include<stdio.h>

int main()

{

int day;

printf("enter the day");

scanf("%d",&day);

switch(day){

case 1:

printf("the day is monday");

break;

case 2:

printf("the day is tuesday");

break;

case 3:

printf("the day is wednesday");

break;

case 4:

printf("the day is Thursday");

break;

case 5:

printf("the day is friday");

break;

case 6:

printf("the day is saturday");

break;

case 7:

printf("the day is sunday");

break;

default:

printf("enter a valid value");

}

}

-----------------------------------------------------------------

#1

#include<stdio.h>

int main()

{

int day;

printf("enter the day");

scanf("%d",&day);

switch(day){

case 1:

printf("the day is monday");

break;

case 2:

printf("the day is tuesday");

break;

case 3:

printf("the day is wednesday");

break;

case 4:

printf("the day is Thursday");

break;

case 5:

printf("the day is friday");

break;

case 6:

printf("the day is saturday");

break;

case 7:

printf("the day is sunday");

break;

default:

printf("enter a valid value");

}

}

#2

#include <stdio.h>

int main() {

int a, b;

char operation;

printf("Enter two values a and b: ");

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

printf("Enter operation + or - or \* or /: ");

scanf(" %c", &operation);

switch(operation) {

case '+':

printf("result= %d\n", a + b);

break;

case '-':

printf("result = %d\n", a - b);

break;

case '\*':

printf("result = %d\n", a\*b);

break;

case '/':

printf("result = %d\n", a/b);

break;

default:

printf("Invalid operation\n");

}

return 0;

}

#3

#include<stdio.h>

int main(){

char c;

printf("enter a charcter");

scanf("%c",&c);

switch(c){

case 'a':

printf("vowel");

break;

case 'e':

printf("vowel");

break;

case 'i':

printf("vowel");

break;

case 'o':

printf("vowel");

break;

case 'u':

printf("vowel");

break;

default:

printf("consonant");

}

}

#4

#include<stdio.h>

int main(){

int digit;

printf("enter a digit between 0 & 9");

scanf("%d",&digit);

switch(digit){

case 0:

printf("zero");

break;

case 1:

printf("one");

break;

case 2:

printf("two");

break;

case 3:

printf("three");

break;

case 4:

printf("four");

break;

case 5:

printf("five");

break;

case 6:

printf("six");

break;

case 7:

printf("seven");

break;

case 8:

printf("eight");

break;

case 9:

printf("nine");

break;

default:

printf("Given value not within the range");

}

}

#5

#include<stdio.h>

int main()

{

int month;

printf("enter the month");

scanf("%d",&month);

switch(month){

case 1:

printf("the month is january");

break;

case 2:

printf("the month is february");

break;

case 3:

printf("the month is march");

break;

case 4:

printf("the month is april");

break;

case 5:

printf("the month is may");

break;

case 6:

printf("the month is june");

break;

case 7:

printf("the month is july");

break;

case 8:

printf("the month is august");

break;

case 9:

printf("the month is september");

break;

case 10:

printf("the month is october");

break;

case 11:

printf("the month is november");

break;

case 12:

printf("the month is december");

break;

default:

printf("enter a valid value");

}

}

#6

#include<stdio.h>

int main(){

char c;

printf("Enter the grade");

scanf("%c",&c);

switch(c){

case 'A':

printf("Outstanding");

break;

case 'B':

printf("Excellent");

break;

case 'C':

printf("Good");

break;

case 'D':

printf("Need to improve");

break;

case 'E':

printf("Work harder!");

break;

case 'F':

printf("Falied");

break;

default:

printf("enter a valid grade");

}

}

#7

#include <stdio.h>

int main() {

int choice;

float a, b;

printf("Menu:\n");

printf("1. Addition\n");

printf("2. Subtraction\n");

printf("3. Multiplication\n");

printf("4. Division\n");

printf("5. Exit\n");

printf("\nEnter your choice (1-5): ");

scanf("%d", &choice);

if (choice != 5) {

printf("Enter two numbers: ");

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

}

switch (choice) {

case 1:

printf("Addition: %.2f + %.2f = %.2f\n", a, b, a + b);

break;

case 2:

printf("Subtraction: %.2f - %.2f = %.2f\n", a, b, a - b);

break;

case 3:

printf("Multiplication: %.2f \* %.2f = %.2f\n", a, b, a \* b);

break;

case 4:

if (b != 0) {

printf("Division: %.2f / %.2f = %.2f\n", a, b, a / b);

} else {

printf("Error! Division by zero.\n");

}

break;

case 5:

printf("Exiting program.\n");

break;

default:

printf("Invalid choice! Please try again.\n");

}

return 0;

}

#8

#include<stdio.h>

int main(){

char c;

printf("enter the character: ");

scanf("%c",&c);

switch(c){

case 'R':

printf("stop");

break;

case 'Y':

printf("Get ready!");

break;

case 'G':

printf("Go");

break;

default:

printf("Invalid input");

}

}

#9

#include <stdio.h>

int main() {

int year;

printf("Enter a year: ");

scanf("%d", &year);

switch (year % 4 == 0) {

case 1:

if (year % 100 == 0) {

if (year % 400 == 0) {

printf("%d is a leap year.\n", year);

} else {

printf("%d is not a leap year.\n", year);

}

} else {

printf("%d is a leap year.\n", year);

}

break;

case 0:

printf("%d is not a leap year.\n", year);

break;

}

return 0;

}

#10

#include<stdio.h>

int main(){

int n;

printf("enter the number ");

scanf("%d",&n);

switch(n){

case 1:

int r;

printf("enter the radius of circle ");

scanf("%d",&r);

printf("the area of circle = %f",3.14\*r\*r);

break;

case 2:

int l,b;

printf("enter the length and breadth of rectangle ");

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

printf("the area of rectangle = %d",l\*b);

break;

case 3:

int s;

printf("enter the length of one side of square ");

scanf("%d",&s);

printf("the area of circle = %d",s\*s);

break;

default:

printf("enter a valid option");

}

}