**1.Weekday**

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int day;

String dayType="",dayString="";

Scanner sc=new Scanner(System.in);

System.out.println("Enter day number");

day=sc.nextInt();

switch (day)

{

case 1:

dayString = "Monday";

dayType = "Weekday";

break;

case 2:

dayString = "Tuesday";dayType = "Weekday";

break;

case 3:

dayString = "Wednesday";dayType = "Weekday";

break;

case 4:

dayString = "Thursday";dayType = "Weekday";

break;

case 5:

dayString = "Friday";dayType = "Weekday";

break;

case 6:

dayString = "Saturday";dayType = "Weekend";

break;

case 7:

dayString = "Sunday";dayType = "Weekend";

break;

default:

dayString = "Invalid day";

}

System.out.println(dayString + " is a " + dayType);

}

}

**2.Addition/Swap/Max/Min fro 2 no**

import java.util.\*;

public class Main{

public static void main(String[] args)

{

int a,b,ch;

Scanner sc=new Scanner(System.in);

System.out.println("Enter value of a & b");

a=sc.nextInt();

b=sc.nextInt();

do

{

System.out.println("5:exit");

System.out.println("enter u r choice");

ch=sc.nextInt();

switch(ch)

{

case 1: System.out.println("add="+(a+b)) ;break;

case 2:

a=a+b;

b=a-b;

a=a-b;

System.out.println("a = "+a+" b = "+b);

break;

case 3:

if(a>b)

{

System.out.println(a+" is max");

}

else if(b>a)

{

System.out.println(b+" is max");

}

else

{

System.out.println("euquals");

}

break;

case 4:

if(b<a)

{

System.out.println(b+" is min");

}

else if(a<b)

{

System.out.println(a+" is min");

}

else

{

System.out.println("euquals");

}

break;

case 5: System.exit(0);break;

default:System.out.println("invalid choice");

}

}while(ch<=5);

}

}

**3.Even/odd/divisible by 17/divisible byb5 & 7/divisible by 5or 7/leap year or not/positive/negative/calculate elec bill/age/discount/pin**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

int n,age,ch;

Scanner sc = new Scanner(System.in);

do {

System.out.println("1: Even / Odd");

System.out.println("2: divisible by 17");

System.out.println("3: divisible by 5 & 7");

System.out.println("4: divisible by 5 or 7");

System.out.println("5: Leap year or not");

System.out.println("6: positive/negative");

System.out.println("7: Calculate electricity bill");

System.out.println("8: Age");

System.out.println("9: Discount");

System.out.println("10: Pin");

System.out.println("11: Exit");

System.out.println("Enter your choice");

ch = sc.nextInt();

switch (ch)

{

case 1:

System.out.println("Enter number");

n = sc.nextInt();

if(n%2==0)

{

System.out.println(n + " is Even number");

}

else

{

System.out.println(n + " is Odd number");

}

break;

case 2:

System.out.println("Enter number");

n = sc.nextInt();

if(n%17==0)

{

System.out.println(n + " is divisible by 17");

}

else

{

System.out.println(n + " is not divisible by 17");

}

break;

case 3:

System.out.println("Enter number");

n = sc.nextInt();

if(n%5==0 && n%7==0)

{

System.out.println(n + " is divisible by 5 and 7");

}

else

{

System.out.println(n + " is divisible not by 5 and 7");

}

break;

case 4:

System.out.println("Enter number");

n = sc.nextInt();

if(n%5==0 || n%7==0)

{

System.out.println(n + " is divisible by 5 or 7");

}

else

{

System.out.println(n + " is not divisible by 5 or 7");

}

break;

case 5:

System.out.println("Enter year:");

int year = sc.nextInt();

if(year%4==0)

{

System.out.println(year + " is leap year");

}

else

{

System.out.println(year + " is not leap year");

}

break;

case 6:

System.out.println("Enter number");

n = sc.nextInt();

if(n>0)

{

System.out.println(n + " is even number");

}

else if(n<0)

{

System.out.println(n + " is odd number");

}

else

{

System.out.println("Zero");

}

break;

case 7:

int unit;

double UC,ElectricityCharge = 0.0,EC,total;

System.out.println("Enter Unit:");

unit=sc.nextInt();

if(unit<=100)

{

ElectricityCharge =unit\*3.44;

System.out.println("Electricity charge :"+ElectricityCharge);

}

else if(unit>=101 &&unit<=300 )

{

ElectricityCharge=unit\*7.34;

System.out.println("Electricity charge :"+ElectricityCharge);

}

else if(unit>=301 && unit<=500)

{

ElectricityCharge=unit\*10.36;

System.out.println("Electricity charge :"+ElectricityCharge);

}

else if(unit>=501 && unit<=1000)

{

ElectricityCharge=unit\*11.82;

System.out.println("Electricity charge :"+ElectricityCharge);

}

else

{

ElectricityCharge=unit\*11.92;

System.out.println("Electricity charge :"+ElectricityCharge);

}

UC=unit\*1.38;

EC=((102+ElectricityCharge+UC)\*0.16);

total=102+ElectricityCharge+UC+EC;

System.out.println("Unit Charge="+UC);

System.out.println("tax="+EC);

System.out.println("Total bill="+total);

break;

case 8:

System.out.println("Enter age:");

age = sc.nextInt();

int day = age\*365;

break;

case 9:

double amt,discAmount=0;

System.out.println("Enter Amount");

amt = sc.nextDouble();

if(amt<10000 )

{

System.out.println("No discount");

}

else if(amt>=10000 && amt<20000)

{

discAmount =amt\*0.05;

}

else if(amt>=20000 && amt<50000)

{

discAmount =amt\*0.07;

}

else if(amt>=50000)

{

discAmount =amt\*0.10;

}

if (discAmount > 0)

{

System.out.println("Discount amount is: " + discAmount);

System.out.println("Final amount after discount is: " + (amt - discAmount));

}

break;

case 10:

int pin,no=1234;

System.out.println("Enter pin:");

pin = sc.nextInt();

if(no==pin)

{

System.out.println("Valid pin");

}

else {

System.out.println("Invalid pin");

}

break;

case 11:

System.out.println("Exiting...");

break;

default:

System.out.println("Invalid choice");

}

} while (ch != 11);

}

}

**4.1: Area of circle**

**2:Area of traingle**

**3:Area of rectangle**

**4:Kinetic Energy**

**5:Am & HM**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

int ch;

double r,A,b;

Scanner sc=new Scanner(System.in);

do

{

System.out.println("1:Area of circle \n 2:Area of traingle\n3:Area of rectangle\n4:Kinetic Energy");

System.out.println("5:Am & HM");

System.out.println("enter u r choice");

ch=sc.nextInt();

switch(ch)

{

case 1:

System.out.println("enter r");

r=sc.nextDouble();

A=3.14\*r\*r;

System.out.println("Area="+A);

break;

case 2:

System.out.println("enter b & h");

b=sc.nextDouble();

double h=sc.nextDouble();

A=0.5\*b\*h;

System.out.println("Area of triangle="+A);

break;

case 3:

System.out.println("enter b & l");

b=sc.nextDouble();

double l=sc.nextDouble();

A=l\*b;

System.out.println("Area of Rect="+A);

break;

case 4:

System.out.println("enter m & v");

double m=sc.nextDouble();

double v=sc.nextDouble();

A=0.5\*m\*v;

System.out.println("KE="+A);break;

case 5:

System.out.println("enter a & b");

double a=sc.nextDouble();

b=sc.nextDouble();

double am=(a+b)/2;

System.out.println("AM="+am);break;

// add 3 extra cases

default:System.out.println("invalid choice");;

}

}while(ch<=5);

}

}

**5.Addition/Swap of 2 no/Max from 2 no/Min from 2 no**

import java.util.\*;

public class Main{

public static void main(String[]args)

{

int a,b,ch;

Scanner sc=new Scanner(System.in);

System.out.println("Enter value of a & b");

a=sc.nextInt();

b=sc.nextInt();

do

{

System.out.println("1:addition of 2 numbers\n2:swap of 2 numbers\n3:max from 2 numbers\n4:min from 2 numbers");

System.out.println("5:exit");

System.out.println("enter u r choice");

ch=sc.nextInt();

switch(ch)

{

case 1: System.out.println("add="+(a+b)) ;break;

case 2:

a=a+b;

b=a-b;

a=a-b;

System.out.println("a = "+a+" b = "+b);

break;

case 3:

if(a>b)

{

System.out.println(a+" is max");

}

else if(b>a)

{

System.out.println(b+" is max");

}

else

{

System.out.println("euquals");

}

break;

case 4:

if(b<a)

{

System.out.println(b+" is min");

}

else if(a<b)

{

System.out.println(a+" is min");

}

else

{

System.out.println("euquals");

}

break;

case 5: System.exit(0);break;

default:System.out.println("invalid choice");

}

}while(ch<=5);

}

}

**6.**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

int a,b,c,ch;

Scanner sc = new Scanner(System.in);

do {

System.out.println("1: first number is between second and third");

System.out.println("2: min from three numbers");

System.out.println("3: max from three numbers");

System.out.println("4: ATKT");

System.out.println("5: triangle");

System.out.println("6: blood donation");

System.out.println("7: Aptitude exam");

System.out.println("8: Exit");

System.out.println("Enter your choice");

ch = sc.nextInt();

switch (ch) {

case 1:

System.out.println("Enter values a,b and c:");

a = sc.nextInt();

b = sc.nextInt();

c = sc.nextInt();

System.out.println("Enter a ,b and c");

a=sc.nextInt();

b=sc.nextInt();

c=sc.nextInt();

if((a>b && a<c) || (a>c && a<b))

{

System.out.println("The first num (a) is between the second num (b) and the third num (c).");

}

else

{

System.out.println("The first num (a) not is between the second num (b) and the third num (c).");

}

break;

case 2:

System.out.println("Enter 3 numbers:");

a = sc.nextInt();

b = sc.nextInt();

c = sc.nextInt();

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

System.out.println(a + " is min from " + b + " and " + c);

} else if (b < a && b < c) {

System.out.println(b + " is min from " + a + " and " + c);

} else if (c < a && c < b) {

System.out.println(c + " is min from " + a + " and " + b);

} else if (a == b && a < c) {

System.out.println(a + " and " + b + " are equal & min");

} else if (b == c && b < a) {

System.out.println(b + " and " + c + " are equal & min");

} else if (a == c && a < b) {

System.out.println(a + " and " + c + " are equal & min");

} else {

System.out.println(a + ", " + b + " and " + c + " are equal");

}

break;

case 3:

System.out.println("Enter 3 numbers:");

a = sc.nextInt();

b = sc.nextInt();

c = sc.nextInt();

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

System.out.println(a + " is max from " + b + " and " + c);

} else if (b > a && b > c) {

System.out.println(b + " is max from " + a + " and " + c);

} else if (c > a && c > b) {

System.out.println(c + " is max from " + a + " and " + b);

} else if (a == b && a > c) {

System.out.println(a + " and " + b + " are equal & max");

} else if (b == c && b > a) {

System.out.println(b + " and " + c + " are equal & max");

} else if (a == c && a > b) {

System.out.println(a + " and " + c + " are equal & max");

} else {

System.out.println(a + ", " + b + " and " + c + " are equal");

}

break;

case 4:

double percentage;

System.out.print("Enter your percentage: ");

percentage = sc.nextDouble();

if (percentage >= 75) {

System.out.println("Distinction");

} else if (percentage >= 60) {

System.out.println("First Class");

} else if (percentage >= 50) {

System.out.println("Second Class");

} else if (percentage >= 40) {

System.out.println("Pass");

} else {

System.out.println("ATKT");

}

break;

case 5:

System.out.println("Enter three sides of triangle:");

a = sc.nextInt();

b = sc.nextInt();

c = sc.nextInt();

if ( (a\*a)+(b\*b)==(c\*c)||(b\*b)+(c\*c)==(a\*a)||(c\*c)+(a\*a)==(b\*b))

{

System.out.println("The given triangle is right angled triangle");

}

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

{

System.out.println("The given triangle is equilateral triangle");

}

else if ((a==b) || (b==c) || (c==a))

{

System.out.println("The given triangle is isosceles triangle");

}

else if (a!=b && b!=c && c!=a)

{

System.out.println("It is scalene");

}

else

{

System.out.println("None");

}

break;

case 6:

int age, weight;

double hemoglobin;

System.out.println("Enter your Age:");

age = sc.nextInt();

System.out.println("Enter your Weight:");

weight = sc.nextInt();

System.out.println("Enter Hemoglobin:");

hemoglobin = sc.nextDouble();

if (age >= 18 && age <= 60) {

if (weight >= 50 && weight <= 90) {

if (hemoglobin >= 12.5 && hemoglobin <= 15.5) {

System.out.println("You can donate blood");

} else {

System.out.println("You can't donate blood due to hemoglobin levels");

}

} else {

System.out.println("You can't donate blood due to weight");

}

} else {

System.out.println("You can't donate blood due to age");

}

break;

case 8:

System.out.println("Exiting...");

break;

default:

System.out.println("Invalid choice");

}

} while (ch != 8);

}

}

**7.**

import java.util.\*;

public class Main {

public static void main(String[] args) {

int a, b, ch;

Scanner sc = new Scanner(System.in);

do {

System.out.println("1: Max 2 number");

System.out.println("2: Loss or Profit");

System.out.println("3: Quadrant");

System.out.println("4: Bank Money(ATM)");

System.out.println("5: Exit");

System.out.println("Enter your choice");

ch = sc.nextInt();

switch (ch) {

case 1:

System.out.println("Enter value of a & b");

a = sc.nextInt();

b = sc.nextInt();

if(a>b)

{

System.out.println(a+" is maximum");

}

else if(b>a)

{

System.out.println(a+" is not maximum");

}

else

{

System.out.println(a+" is Equal");

}

break;

case 2:

double cp, sp, total, per;

System.out.println("Enter Cost price & Selling price:");

cp = sc.nextDouble();

sp = sc.nextDouble();

if (cp > sp) {

total = cp - sp;

per = (total / cp) \* 100;

System.out.println("Loss " + total + " per = " + per + "%");

} else if (sp > cp) {

total = sp - cp;

per = (total / cp) \* 100;

System.out.println("Profit " + total + " per = " + per + "%");

} else {

System.out.println("No profit No loss");

}

break;

case 3:

int x,y;

System.out.println("Enter values x and y:");

x=sc.nextInt();

y=sc.nextInt();

if(x>0 && y>0)

{

System.out.println("Quad 1");

}

else if(x<0 && y>0)

{

System.out.println("Quad 2");

}

else if(x<0 && y<0)

{

System.out.println("Quad 3");

}

else if(x>0 && y<0)

{

System.out.println("Quad 4");

}

break;

case 5:

System.out.println("Exiting...");

break;

default:

System.out.println("Invalid choice");

}

} while (ch != 5);

}

}

**8.**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

int day,month,year;

Scanner sc = new Scanner(System.in);

System.out.println("Enter a date (format: DD MM YYYY):");

day = sc.nextInt();

month = sc.nextInt();

year = sc.nextInt();

if(month>=1 && month<=12)

{

if(year>=1000 && year<=9999)

{

if (day >= 1 && day <= 31)

{

switch (month)

{

case 1:

case 3: case 5: case 7: case 8: case 10: case 12:

System.out.println(day+"-"+month+"-"+year+" Valid date.");

if(day==31 && month==12)

{

month=1;

day=1;

year++;

}

else if(day==31 )

{

month++;

day=1;

}

else

{

day++;

}

System.out.println("Next dat ="+day+"-"+month+"-"+year+" Valid date.");

break;

case 4: case 6: case 9: case 11:

if (day <= 30)

{

System.out.println(day+"-"+month+"-"+year+" Valid date.");

}

else

{

System.out.println(day+"-"+month+"-"+year+" InValid date.");

}

break;

case 2:

if ((year % 4 == 0 && day <= 29) )

{

System.out.println(day+"-"+month+"-"+year+" Valid date.");

}

else if(day <= 28)

{

System.out.println(day+"-"+month+"-"+year+" Valid date.");

}

else

{

System.out.println(day+"-"+month+"-"+year+" InValid date.");

}

break;

}

}

else

{

System.out.println("Invalid day.");

}

}

else

{

System.out.println("Invalid year.");

}

}

**9.**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

while (true) {

System.out.println(" 1 : increment");

System.out.println("2 : decriment");

int d, m, y;

System.out.println("Enter the date dd mm yyyy");

Scanner sc = new Scanner(System.in);

d = sc.nextInt();

m = sc.nextInt();

y = sc.nextInt();

if (y > 1900 && y <= 9999) {

if (m >= 1 && m <= 12) {

if (d >= 1 && d <= 31) {

int ch;

System.out.println("Enter the Case : ");

ch=sc.nextInt();

switch (ch) {

case 1:

switch (m) {

case 1: case 3: case 5: case 7: case 8: case 10: case 12:

if(d<=31)

{

System.out.println(d+"/"+m+"/"+y+" Valid date");

if (d == 31) {

if (m == 12) {

d = 1;

m = 1;

y++;

} else {

d = 1;

m++;

}

} else {

d++;

}

break;

}

case 4: case 6: case 9: case 11:

if (d<=30) {

System.out.println(d+"/"+m+"/"+"y"+" Valid date");

if (d == 30) {

d = 1;

m++;

} else {

d++;

}

break;

}

case 2:

if(d>=28&&d<=29)

{

System.out.println(d + "-" + m + "-" + y + " Valid date");

if (( d == 29) || ( d == 28)) {

d = 1;

m++;

} else {

d++;

}

}

break;

}

break;

case 2:

if (y > 1900 && y <= 9999) {

if (m >= 1 && m <= 12) {

if (d>=1&&d<=31) {

System.out.println(d + "/" + m + "/" + y + " is a valid date");

// Calculate the previous day

if (d == 1) {

if (m == 1) {

d = 31;

m = 12;

y--;

} else {

m--;

if (m == 2) {

if ((y % 4 == 0 && y % 100 != 0) || (y % 400 == 0)) {

d = 29;

} else {

d = 28;

}

}

else if (m == 4 || m == 6 || m == 9 || m == 11)

{

d = 30;

} else {

d = 31;

}

}

} else {

d--;

}

System.out.println( d + "/" + m + "/" + y+"Previous day: " );

} else {

System.out.println("Invalid day");

}

} else {

System.out.println("Invalid month");

}

} else {

System.out.println("Invalid year");

}

}

}

System.out.println(d + "-" + m + "-" + y + " Next day");

}

else

{

System.out.println("Invalid day");

}

}

else

{

System.out.println("Invalid day");

}

}

}

}

else

{

System.out.println("Invalid month.");

}

}

}

**10.**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter a character:");

char ch = scanner.next().charAt(0);

String charType;

if(ch >= 'A' && ch <= 'Z')

{

charType="Uppercase";

}

else if(ch >= 'a' && ch <= 'z')

{

charType="Lowercase";

}

else if(ch >= '0' && ch <= '9')

{

charType="Digit";

}

else {

charType="Special Character";

}

switch (charType) {

case "Uppercase":

System.out.println(ch + " is an Uppercase letter");

break;

case "Lowercase":

System.out.println(ch + " is a lowercase letter");

break;

case "Digit":

System.out.println(ch + " is a digit");

break;

default:

System.out.println(ch + " is a special character");

break;

}

}

}

**11.**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter a vowel character:");

char character = scanner.next().toLowerCase().charAt(0);

switch (character) {

case 'a':

System.out.println("A is for Apple.");

break;

case 'e':

System.out.println("E is for Elephant.");

break;

case 'i':

System.out.println("I is for Ice cream.");

break;

case 'o':

System.out.println("O is for Orange.");

break;

case 'u':

System.out.println("U is for Umbrella.");

break;

default:

System.out.println(character + " is not a vowel.");

break;

}

}

}

**12.**

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the first number:");

int num1 = scanner.nextInt();

System.out.println("Enter the second number:");

int num2 = scanner.nextInt();

int bigger = (num1 > num2) ? 1 : (num1 < num2) ? 2 : 3;

switch (bigger) {

case 1:

System.out.println("The first number " + num1 + " is bigger.");

break;

case 2:

System.out.println("The second number " + num2 + " is bigger.");

break;

case 3:

System.out.println("Both numbers are equal.");

break;

default:

System.out.println("Error");

break;

}

}

}

**13.**

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

double num1, num2;

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the first number:");

num1 = scanner.nextDouble();

System.out.println("Enter the second number:");

num2 = scanner.nextDouble();

int ch;

do {

System.out.println("1: Addition");

System.out.println("2: Subtraction");

System.out.println("3: Multiplication");

System.out.println("4: Division");

System.out.println("5: Exit");

System.out.println("Enter your choice:");

ch = scanner.nextInt();

switch (ch) {

case 1:

double add = num1 + num2;

System.out.println("Addition: " + add);

break;

case 2:

double sub = num1 - num2;

System.out.println("Subtraction: " + sub);

break;

case 3:

double mult = num1 \* num2;

System.out.println("Multiplication: " + mult);

break;

case 4:

double div = num1 / num2;

System.out.println("Division: " + div);

break;

case 5:

System.out.println("Exiting...");

break;

default:

System.out.println("Invalid choice");

break;

}

} while (ch <= 5);

}

}