#include <iostream>

using namespace std;

int TongTich(int n){

for (int i = 10; i <= 99; i++) {

int nguyen = n / 10;

int du = n % 10;

if (nguyen \* du == (nguyen + du)\*2) {

cout << "Thoa dieu kien: ";

break;

}else{

cout << "Khong thoa dieu kien: ";

break;

}

}

return n;

}

bool KT(int k){

if(k < 2){

return false;

}

for(int i=2; i\*i<=k; i++){

if(k%i == 0){

return false;

}

}

return true;

}

int SoNT(int k){

for(int i=0; i<k; i++){

if(KT(i)){

cout << "i= " <<i << " ";

}

}

return 0;

}

void xuatMa(){

for (int i = 0; i <= 127; i++) {

cout << i << ": " << char(i) << endl;

}

}

int DaoNguoc(int a){

for (int i = 10; i <= a; i++) {

int nguyen = a / 10;

int du = a % 10;

int temp = nguyen;

nguyen = du;

du = temp;

cout << "So dao nuoc la: " << nguyen << du;

break;

}

return 0;

}

int DemTong(int b){

int sum =0, coun =0;

while(b != 0) {

sum += (b%10);

coun++;

b /=10;

}

cout << "So luong cac chu so la: " << coun << "Tong la: " << sum;

return 0;

}

int TienCuoc(double Start, double end) {

double Tong = end - Start;

double Tien;

if(Start >= 7 && end <= 17){

if(Tong < 6){

Tien = Tong \* 24000;

}

else{

Tien = (Tong \* 24000)\*0.1;

}

} else if (Start >= 17 && end <= 24){

if(Tong < 4){

Tien = Tong \* 21000;

}

else{

Tien = (Tong \* 21000)\*0.12;

}

} else {

if(Tong < 7){

Tien = Tong \* 18000;

}

else{

Tien = (Tong \* 18000)\*0.12;

}

}

return Tien;

}

int TienPhong(char Phong, int SoNgay){

int Tien;

if(Phong == 'A'){

if(SoNgay > 12){

Tien = SoNgay \* 250000 \* 0.1;

}else {

Tien = SoNgay \* 250000;

}

}else if(Phong == 'B'){

if(SoNgay > 12){

Tien = SoNgay \* 200000 \* 0.8;

}else {

Tien = SoNgay \* 200000;

}

}else {

if(SoNgay > 12){

Tien = SoNgay \* 150000 \* 0.1;

}else {

Tien = SoNgay \* 150000;

}

}

return Tien;

}

int TBC (int To, int Ly, int Ho){

int TBC = (To+Ly+Ho)/3;

switch(TBC){

case 10:

case 9:

cout << "Xuất sắc.";

break;

case 8:

cout << "Gioi.";

break;

case 7:

case 6:

cout << "Khá.";

break;

case 5:

cout << "Trung binh.";

break;

case 4:

case 3:

cout << "Yếu.";

break;

case 2:

case 1:

case 0:

cout << "Kém.";

break;

}

return 0;

}

int NgayThang(int Ngay, int Thang){

if(Thang == 1 || Thang == 3 ||Thang == 5 ||Thang == 7 ||Thang == 8 ||Thang == 10 ||Thang == 12){

if(Thang != 3){

cout << "Thang " << Thang << " có 31 ngày" << endl;

cout << "Thang tiep theo " << Thang+1 << " có 30 ngày"<< endl;

cout << "Thang truoc " << Thang-1 << " có 30 ngày"<< endl;

}else {

cout << "Thang " << Thang << " có 31 ngày"<< endl;

cout << "Thang tiep theo " << Thang+1 << " có 30 ngày"<< endl;

cout << "Thang truoc " << Thang-1 << " có 28 ngày"<< endl;

}

}else if(Thang == 2){

cout << "Thang " << Thang << " có 28 ngày"<< endl;

cout << "Thang tiep theo " << Thang+1 << " có 30 ngày"<< endl;

cout << "Thang truoc " << Thang-1 << " có 30 ngày"<< endl;

} else {

cout << "Thang " << Thang << " có 30 ngày"<< endl;

cout << "Thang tiep theo " << Thang+1 << " có 31 ngày"<< endl;

cout << "Thang truoc " << Thang-1 << " có 31 ngày"<< endl;

}

return 0;

}

int main (){

int chon;

cout << "Nhap so cau ban muon xem: "; cin >> chon;

switch(chon) {

case 1:

int n;

cout << "Nhap so nguyen: "; cin >> n;

cout << TongTich(n)<< endl;

break;

case 2:

int k;

cout << "Nhap so nguyen: "; cin >> k;

SoNT(k);

break;

case 3:

xuatMa();

break;

case 4:

int a;

cout << "Nhap so nguyen: "; cin >> a;

DaoNguoc(a);

break;

case 5:

int b;

cout << "Nhap so nguyen: "; cin >> b;

DemTong(b);

break;

case 6:

int x, z;

cout << "Nhap gio bat dau: "; cin >> x;

cout << "Nhap gio ket thuc: "; cin >> z;

cout << "So tien tra la: " << TienCuoc(x,z);

break;

case 7:

char Phong;

int SoNgay;

cout << "Nhap phong: "; cin >> Phong;

cout << "Nhap so ngay o: "; cin >> SoNgay;

cout << "So tien tra la: " << TienPhong(Phong, SoNgay);

break;

case 8:

int ngay, Thang;

do {

cout << "Nhap thang: "; cin >> Thang;

if(Thang <= 0 || Thang > 12){

cout << "Ngày không hợp lệ.";

}

} while(Thang <= 0 || Thang > 12);

do {

cout << "Nhap ngay: "; cin >> ngay;

if(ngay < 0 || ngay > 31 && Thang == 1 || Thang == 3 ||Thang == 5 ||Thang == 7 ||Thang == 8 ||Thang == 10 ||Thang == 12){

cout << "Ngày không hợp lệ.";

}

} while(ngay < 0 || ngay > 31 && Thang == 1 || Thang == 3 ||Thang == 5 ||Thang == 7 ||Thang == 8 ||Thang == 10 ||Thang == 12);

NgayThang(ngay,Thang);

break;

case 9:

int Toan, Ly, Hoa;

cout << "Nhap diem mon toan: "; cin >> Toan;

cout << "Nhap diem mon ly: "; cin >> Ly;

cout << "Nhap diem mon hoa: "; cin >> Hoa;

cout << "Loai la: " << TBC(Toan,Ly,Hoa);

break;

}

}