

Exercícios propostas na semana 7

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//----- atribquad -----
#include<iostream>
#include<cmath>
using namespace std;
void atribquad(float lado, float & area, float & per, float & diag){
    area = lado * lado;
    per = 4 * lado;
    diag = lado * sqrt(2.0);
}
int main(){
    float x,a,p,d;
    cin>>x;
    atribquad(x,a,p,d);
    cout<<"Area: " <<a<<endl;
    cout<<"Perimetro: " <<p<<endl;
    cout<<"Diagonal: " <<d<<endl;
}

//----- tempojogo -----
#include<iostream>
using namespace std;
int tempojogo(int h1, int m1, int h2, int m2, int & dur){
    int d1,d2;
    d1=(h1*60)+m1;
    d2=(h2*60)+m2;
    // cout<<d1<<" " <<d2<<endl;
    if (d2<d1) {swap(d1,d2);}
    dur=d2-d1;
    if (dur>210){return 1;}
    return 0;
}
int main(){
    int h1,m1,h2,m2,dur,res;
    cin>>h1>>m1>>h2>>m2;
    res=tempojogo(h1,m1,h2,m2,dur);
    cout<<"Duracao " <<dur<<" com res=" <<res<<endl;
}

//----- maxpot -----
#include<iostream>
#include<cmath>
using namespace std;
int maxpot(int x, int y, int maxpot, int & res){
    res=pow(x,y);
    if (res<maxpot){return 1;}
    return 0;
}
int main(){
    int x,y,m,r,resposta;
    cin>>x>>y>>m;
    resposta=maxpot(x,y,m,r);
    cout<<"A potência e: " <<r<<" com resposta=" <<resposta<<endl;
}

//----- raizes2g -----
#include<iostream>
#include<cmath>
using namespace std;
int eq2grau(float & a, float & b, float & c, float & x1, float & x2){
    float delta,nv;
    delta=(b*b)-4*a*c;
    if (delta<0){return 0;}
    nv=sqrt(delta);
    x1=(-b+nv)/(2*a);
    x2=(-b-nv)/(2*a);
}
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    x2=(-b-nv)/(2*a);
    return 1;
}
int main(){
    float a,b,c,x1,x2;
    int r;
    cin>>a>>b>>c;
    while ((a!=0)||(b!=0)||(c!=0)){
        r=eq2grau(a,b,c,x1,x2);
        if (r==0){cout<<"sem raizes reais"<<endl;}
        else{cout<<x1<<" "<<x2;}
        cin>>a>>b>>c;
    }
}
//----- ordena -----
#include<iostream>
using namespace std;
void troca(int &a, int &b){
    int tmp;
    tmp=a;
    a=b;
    b=tmp;
}
int main(){
    int a,b,c;
    cin>>a>>b>>c;
    if (a>b) {troca (a,b);}
    if (b>c) {troca (b,c);}
    if (a>b) {troca (a,b);}
    cout<<a<<" "<<b<<" "<<c<<endl;
}
//----- multiplos -----
#include<iostream>
using namespace std;
void multiplos(int m, int n, int &t, int &maior){
    if ((m<0) || (n<0)){t=0; maior=0; return;}
    while ((n%m)!=0){
        n=n-1;
    }
    maior=n;
    t=n/m;
    return;
}
int main(){
    int m,n,t,maior;
    cin>>m>>n;
    multiplos(m,n,t,maior);
    cout<<t<<" "<<maior<<endl;
}

```