```
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<stdint.h>
#include<math.h>
typedef uint8_t U;typedef uint32_t V;typedef
uint16_t W;typedef struct{float x,y;}du;typedef
struct{float h[3],l[3];}hr;typedef struct{int G,aH;
float Z;}bF fs;}a;typedef struct{int aI;int bf;U*l;}
bG;typedef struct{char bp;int aE;int aA;U*l;int D;}
cY;typedef struct{cY*I;int F;int aF;}av;static int
fG(FILE*f){int c;while((c=fgetc(f))!=EOF){if(c=='#')
while((c=fgetc(f))!=EOF&&c!='\n');else if(c>' '){
ungetc(c,f);return 1;}}return 0;}static void dW(U*dl
,U*hP,int aT,int bf){int bs=32;for(int by=0;by<bf;by
+=bs){for(int bx=0;bx<aT;bx+=bs){int bw=(bx+bs*2<aT)
?bs*2:aT-bx;int bh=(by+bs*2<bf)?bs*2:bf-by;int nx=0,
for(int y=by;y<by+bh;y++){for(int x=bx;x<bx+bw;x++)hx
+=dl[y*aT+x];int ap=(bw*bh)-10;if(gs<20)gs=20;int
ew=(bx+bs>aT)?aT-bx:int eh=(by+bs<bf)?bs:bf-by;
for(int y=by;y<by+eh;y++){for(int x=bx;x<bx+ew;x++){
int gE=y*aT+x;hP[gE]=(dl[gE]<gs)?1:0;}}}}static bG*
fz(const char*hl){FILE*f=fopen(hl,"rb");if(!f)return
0;bG*ag=calloc(1,sizeof(bG));U*dl=0;char eZ[3];=0};
if(fread(eZ,1,2,f)!=2)goto eC;int gd=0;if(eZ[1]=='1'
)gd=1;else if(eZ[1]=='4')gd=4;else if(eZ[1]=='2')gd=
2;else if(eZ[1]=='5')gd=5;if(eZ[0]!='P'||!gd)goto eC
;if(!fG(f)||!fscanf(f,"%d",&ag->aT)||!=1)goto eC;if(!fG
(f)||fscanf(f,"%d",&ag->bf)!=1)goto eC;int eD=1;if(
gd==2||gd==5){if(!fG(f)||fscanf(f,"%d",&eD)!=1)goto
eC;if(eD<=0)eD=255;}fgetc(f);int n=ag->aT*ag->bf;ag
->l=malloc(n);if(gd==4){int rb=(ag->aT+7)/8;U*fa=
malloc(rb);for(int y=0;y<ag->bf;y++){if(fread(fa,1,
rb,f)!=(size_t)rb){free(fa);goto eC;}for(int x=0;x<
ag->aT;x++)ag->l[y*ag->aT+x]=(fa[x/8]>>(7-x%8)&1);
free(fa);}else if(gd==1){for(int i=0;i<n;i++){int c;
if(c=(fgetc(f))!=EOF&&c<' ');if(c==EOF)goto ec;
ag->l[i]=(c=='1')?1:0;}else{dl=malloc(n);if(gd==5){
if(fread(dl,1,n,f)!=(size_t)n)goto eC;else{for(int
i=0;i<n;i++){int fH;if(fscanf(f,"%d",&fH)!=1)goto eC
;dl[i]=fH;}}if(eD!=255)for(int i=0;i<n;i++)dl[i]=dl[
i]*255/eD;dW(dl,ag->l,ag->aT,ag->bf);free(dl);dl=0;}
fclose(f);return ag;eC:free(dl);if(ag)free(ag->l);
free(ag);fclose(f);return 0;}static void*aW(bG*ag){
if(ag)free(ag->l);free(ag);}}static int cZ(bG*ag,
int x,int y){if(x<0||x>=ag->aT||y<0||y>=ag->bf)
return 0;return ag->l[y*ag->aT+x];}typedef struct{
int x,y;float Z;float fI;float fJ;}ac;typedef struct
{int E;int aK;int aL;}X;typedef struct{int eE,eF;int
cD,cE;int cF;int F;float by;}aa;static float da(int*
J,float gR){int aA=J[0]+J[1]+J[2]+J[3]+J[4];if(aA<7)
return 0;if(!J[0]||!J[1]||!J[2]||!J[3]||!J[4])return
0;float dN=aA/7.0f,im=dN*gR*1.2f;float eb=(float)J[2
]/aA;if(eb<0.2f||eb>0.55f)return 0;float in=(1+eb)/
(1-eb);float iJ=(J[1]<dN-im||J[1]>dN+im);return 0;if(
J[2]<2.0f*dN||J[2]>4.0f*dN)return 0;return dN;}
static int fb(X*ej,int F,int io,int E,int ip,int iq)
{if(F<io){ej[F].E=E;ej[F].aK=ip;ej[F].aL=iq;return
F<io?F+1:F;}static int fA(int a0,int a1,int b0,int
b1){int ov=((a1<b1?a1:b1)-(a0>b0?a0:b0));int hy=((a1
-a0)<(b1-b0))?(a1-a0):(b1-b0);return ov>=0&&ov>=hy/2
;}static int bO(X*ej,int dO,aa**ft,int ec){if(dO==0)
return 0;aa*bg=*ft;int aF=ec;int fK=0;typedef
struct{int ek;int dm;int dn;int co;};ft;fL br[128];
int dv=0;int co=-999;for(int i=0;i<dO;i++){X*line=&
ej[i];if(line->E!=co){int dc=0;for(int a=0;a<dv;a++)
{if(line->E==br[a].co){dc=a;goto ef;}}if(dc==dv){br
[dc].co=co;dv++;}}ef:;int eG=-1;int eH=(line->aK+
line->aL)/2;for(int a=0;a<dv;a++){if(fA(line->aK,
line->aL,br[a].dm,br[a].dn)){int iQ=line->E-br[a].co
;if(iQ>1){aa*r=&bg[br[a].ek];int dX=r->cD;int dY=r->
cE;if(eH<dX-10||eH>dY+10){continue;}}eG=a;break;}}
int ri,ai;if(eG>=0){ri=br[eG].ek;ai=eG;}else if(dv<
128){if(fK>=aF){aF*=2;bg=realloc(bg,aF*sizeof(aa));*
ft=bg;*ec=aF;}ri=fK++;ai=dv++;br[ai].ek=ri;bg[ri].co
=line->E;bg[ri].cD=line->aK;bg[ri].cE=line->aK;bg[ri
].cF=0;bg[ri].bY=0;bg[ri].F=0;}else continue;aa*r=&
bg[ri];r->eIn=->E;if(line->aK<->cD)r->cD=line->
aK;if(line->aK>->cE)r->cE=line->aK;r->cF+=(line->aK
+line->aL)/2;r->bY+=(line->aL-line->aK)/7.0f;r->F++;
br[ai].dm=line->aK;br[ai].dn=line->aL;br[ai].co=line
->E;}int hz=0;for(int i=0;i<fK;i++){aa*r=&bg[i];int
el=(int)(r->bY/r->F*1.4f);if(el<3)el=3;if(r->F>=eL&&
r->eF-r->eE>=4){bg[hz++]=*r;}return hz;}static int aS
(const void*a,const void*b){const X*la=(const X*)a;
const X*lb=(const X*)b;return la->E-lb->E;}static
int cq(bG*ag,X*ej,int hA){int ic=hA?ag->aT:ag->bf;
int id=hA?ag->bf:ag->aT,dO=0;for(int o=0;o<ic;o++){
int*J5[2];{0};int*iJ=(ic?&J5[0]:0);int hB=hA?cZ(
ag,o,1):cZ(ag,1,o);int hm=(q&1);if(ic>=2)dO=(q&2);
if(q>=4){int*J4[2];{0};int*J3[2];{0};int*J2[2];{0
};int*J1[2];{0};int*J0[2];{0};int w=J[0]+J[1]+J[2]
+J[3]+J[4];dO=fb(ej,dO,16000,o,i,w,i-1);}J[0]=J[2];J
[1]=J[3];J[2]=J[4];J[3]=1;J[4]=0;q<<=1;}return dO;}
static int dq(bG*ag,ac*ah,int ed){X*eI=malloc(16000*
sizeof(X));X*eJ=malloc(16000*sizeof(X));int ir=128,
is=128;aa*fc=malloc(ir*sizeof(aa));aa*fd=malloc(is*
sizeof(aa));int it=cq(ag,eI,0);int iu=cq(ag,eJ,1);
qsort(eI,it,sizeof(X),aS);qsort(eJ,iu,sizeof(X),aS);
int iR=bO(eI,it,&fc,&ir);int iS=bO(eJ,iu,&fd,&is);
int F=0;for(int hi=0;hi<iR&&F<ed;hi++){aa*hr=&fc[hi
];int*Ir=&hr->bY;int*Ix=&hr->bY;int*Iy=Ir;int
Vi=0;vi<iS&&F<ed;vi++){aa*vr=&fd[vi];int fy=vr->cF/
vr->F;float vm=vr->bY/vr->F;if(fx<vr->eE-hm*1.5f||fx
>vr->eF+hm*1.5f)continue;if(fy<hr->eE-vm*1.5f||fy>hr
->eF+vm*1.5f)continue;float ie=(hm>vm)?hm/vm:vm/hm;
if(ie>((hm>3.0f||vm>3.0f)?3.0f:2.5f))continue;float
fm=sqrtf(hm*vm);int gt=0;for(int i=0;i<F&&!gt;i++){
int dx=ah[i].x-fx,dy=ah[i].y-fy;gt=dx*dx+dy*dy<fm*fm
*16;}if(!gt){ah[F].x=fx;ah[F].y=fy;ah[F].Z=fm;ah[F].
fI=hm;ah[F].fJ=vm;F++;}}}free(eI);free(eJ);free(fc);
free(fd);return F;}static int dZ(int v){return 17+4*
v;}typedef struct{U eK[177];}I77;int aH;int G;}fE;
static void cN(int G,int E[8]){if(G==1){E[0]=0;
return;}int aH=17*G*4,hX=aH-7,hQ=G/7+2;int aA=hX-6,
iv=hQ-1;int iw=((aA*2+iv)/(iv*2)+1)&-1;E[0]=6;for(
int i=hQ-1;i>=1;i--)E[i]=hX-(hQ-1-i)*iw;E[hQ]=0;}
static ck(int G,int x,int y){int s=dZ(G);if(x<9
&&y<9)||(x<=8&&y>=s-8)||(x==8&&(y<9||y>=s-8)))return 1;
if(x==6||y==6)return 1;if(G>=2){int E[8];cN(G,E);for
(int i=0;E[i]!=0;i++)for(int j=0;E[j];j++){int aw=E[i],
ay=E[j];if((ax<9&&ay<9)||(ax<9&&ay>=s-8)||(ax>=s-8&&
ay<9))continue;if(x>=ax-2&&x<=ax+2&&y>=ay-2&&y<=ay+2
)return 1;}}if(G>=7){if(x<6&&y>=s-11&&y<s-8)||(y<6
&&x>=s-11&&x<s-8))return 1;}return 0;}static int ar(
bG*ag,const int*J,int*Ir,int*Ix,int*Iy,int hr);static int
(fE*qr,bG*ag,const aJ*O);static const int ns[15]={8,
8,8,8,8,8,8,7,5,4,3,2,1,0};static const int ys[15]
={0,1,2,3,4,5,7,8,8,8,8,8,8,8};V fM=0;for(int i=14
;i>=0;i--){int gG,if(ag)gG=ar(ag,O,xs[i],ys[i],0);
else gG=qr->eK[ys[i]][xs[i]&1];fM=(fM<<1)|gG;}return
fM^0x5412;}static const W bH[32]={0x0000,0x0537,
0x0a6e,0x0f59,0x11eb,0x14dc,0x1b85,0x1ebe,0x23d6,
0x26e1,0x29b8,0x2c8f,0x323d,0x370a,0x3853,0x3d64,
0x429b,0x47ac,0x4f85,0x4dc2,0x5370,0x5647,0x591e,
0x5c29,0x614d,0x647a,0x6b23,0x6e14,0x70a6,0x7591,
0x7ac8,0x7ff7};static int ap(int am,int*Ir,int*Ix,
int*Iy,int hr){int*J=(am?Ix:Ir);int
ic=(J[0]-J[1]-J[2]+J[3]-J[4]);if(em&(1<<(J[0]&31)))
;}if(em==0)return 1;int*Ie=(am?Iy:Ir);int
i=(J[0]-J[1]-J[2]+J[3]-J[4]);int
id=(J[0]+J[1]-J[2]-J[3]-J[4]);int
>>=1;if(fe<dz){dz=fe;fu=bH[i];}}return fu;}static U
bI[512],dP[256];static void cR(void);static int gH=0
;if(gH)return;gH=1;int x=1;for(int i=0;i<255;i++){bI
[i]=x;dP[x]=i;x<<=1;if(x>>7)x^=0x11d;}for(int i=255
;i<512;i++)bI[i]=bI[i-255];}static U bt(U a,U b){
return(a&&b)?bI[(dP[a]+dP[b])%255]:0;}static U gu(U a,U b)
{return(a&&b)?bI[(dP[a]+255-dP[b])%255]:0;}static U
hR(U a){return a?bI[255-dP[a]]:0;}static void cr(U*l
,int bv,int aB,U*aj){cR();for(int i=0;i<aB;i++){U s=
0;for(int j=0;j<bv;j++){s=bt(s,bI[i|j],aj[i]);}aj[i]=s;
}}static int dA(U*aj,int aB,U*cs){cR();U C[256];{0};
U B[256];{0};C[0]=1;B[0]=1;int L=0,m=1;U u,b;for(int
n=0;n<aB;n++){U d=aj[n];for(int i=1;i<=L;i++){d^=bt(
C[i],aj[n-i]);}if(d==0){m++;}else if(2*L<=n){U T[256
];memcpy(T,C,sizeof(T));U hD=gu(d,b);for(int i=0;i<
aB-m;i++){C[i+m]^=bt(hD,B[i]);}memcpy(B,T,sizeof(B))
;L=n+1-L;b=d;m=1;}else{U hD=gu(d,b);for(int i=0;i<aB
-m;i++){C[i+m]^=bt(hD,B[i]);}m++;}}memcpy(cs,C,aB+1)
;return L;}static int ff(U*cs,int Q,int n,int*aM){CR
();int fN=0;for(int i=0;i<n;i++){U hx=cs[0];for(int
j=1;j<=Q;j++){U ig=((255-i)*j)%255;hx^=bt(cs[j],bI[
ig]);}if(hx==0){cs[0]=i;fN=1;}else{cs[0]^=hx;}}
static void gS(U*aj,U*cs,int ds,int*aM,int n,U*eL){CR
();U he[256];{0};for(int i=0;i<Q;i++){U v=0;for(int
j=0;j<=i;j++){v^=bt(aj[i-j],cs[j]);}he[i]=v;}U eM[
256];{0};for(int i=1;i<Q;i++){eM[i-1]=cs[i];}for(
int i=0;i<Q;i++){int E=aM[i];int ee=(n-1-E)%255;U fO
=0;for(int j=0;j<Q;j++){fO^=bt(he[j],bI[(ee*j)%255]
);}U bP=0;for(int j=0;j<Q;j++){int p=(ee*j)%255;bP^=
bt(eM[j],bI[p]);}if(bP!=0){eL[i]=gu(fO,bP);}else{eL[
i]=0;}}}static int en(U*l,int D,int aB){CR();int bv=
D+aB,gI=aB/2;U aj[255];cr(l,bv,aj);int gJ=1;for(
int i=0;i<aB;i++){if(aj[i]!=0){gJ=0;break;}}if(gJ)
return 0;int*cs[256];int*aM=cs+128,n=bv-aB,Q=gI
return-1;int aM[256];int FN=ff(cs,Q,bv,aM);if(FN==0)
return-1;U eL[256];gS(aj,cs,Q,aM,bv,eL);for(int i=0;
i<Q;i++){if(aM[i]>=0&&aM[i<bv]){aM[i]^=eL[i];}cr(l
,bv,aB,aj);for(int i=0;i<aB;i++){if(aj[i]!=0)return
1;}return Q;}static int ho(int m,int x,int y){switch(m
){case 0:return(y+x)%2==0;case 1:return y%2==0;case
2:return x%3==0;case 3:return(y+x)%3==0;case 4:
return(y/2+x/3)%2==0;case 5:return(y*x)%2+(y*x)%3==0
;case 6:return((y*x)%2+(y*x)%3)%2==0;default:return(
(y+x)%2+(y*x)%3)%2==0;}}static void gT(fE*qr,int iz)
{for(int i=0;i<ns[iz];i++){int*Ir=&qr->eK[ys[iz]][xs[iz
+i]];if(!ck(qr->G,x,y)&&ho(iz,i,x,y))qr->eK[y][x]^=1;}
typedef struct{ts bw,ms;}db;typedef struct{int
hy;db I[4];}gv;static const gv ge[41]={{0},{26,{{26
,16,1},{26,19,1},{26,9,1},{26,13,1}}},{44,{{44,28,1}
,{44,34,1},{44,16,1},{44,22,1}}},{70,{{70,44,1},{70,
55,1},{35,13,2},{35,17,2}}},{100,{{50,32,2},{100,80,
1},{25,9,4},{50,24,2}}},{134,{{67,43,2},{134,108,1},
{33,11,2},{33,15,2}}},{172,{{43,27,4},{86,68,2},{43,
15,4},{43,19,4}}},{196,{{49,31,4},{98,78,2},{39,13,4
},{32,14,2}}},{242,{{60,38,2},{121,97,2},{40,14,4},{
40,18,4}}},{292,{{58,36,3},{146,116,2},{36,12,4},{36
,16,4}}},{346,{{86,54,4},{86,68,4},{43,15,6},{43,19,
6}}},{404,{{80,50,1},{101,81,4},{36,12,3},{50,22,4}}
},{466,{{58,36,6},{116,92,2},{42,14,7},{46,20,4}}},{
532,{{59,37,8},{133,107,4},{33,11,12},{44,20,8}}},{
581,{{64,40,4},{145,115,3},{36,12,11},{36,16,11}}},{
655,{{65,41,5},{109,87,5},{36,12,11},{54,24,5}}},{
733,{{73,45,7},{122,98,5},{45,15,3},{43,19,15}}},{
815,{{74,46,10},{135,107,1},{42,14,2},{50,22,1}}},{
901,{{69,43,9},{150,120,5},{42,14,2},{50,22,17}}},{
991,{{70,44,3},{141,113,3},{39,13,9},{47,21,17}}},{
1085,{{67,41,34},{135,107,3},{39,13,17},{54,24,7}
},{1156,{{68,42,17},{144,114,4},{46,16,3},{50,22,17}
},{1256,{{72,45,17},{139,111,4},{37,13,34},{54,24,7}
},{1364,{{75,47,4},{151,121,4},{45,15,16},{54,24,11
}}},{1474,{{73,45,6},{147,117,6},{46,16,30},{54,24,
11}}},{1588,{{75,47,8},{132,106,8},{45,15,22},{54,24
,7}}},{1706,{{74,46,19},{142,114,10},{46,16,33},{50,
22,28}}},{1828,{{73,45,22},{152,122,8},{45,15,12},{
53,23,8}}},{1921,{{73,45,3},{147,117,3},{45,15,11},{
54,24,4}}},{2051,{{73,45,21},{146,116,7},{45,15,19},
{53,23,1}}},{2185,{{75,47,19},{145,115,5},{45,15,23}
,{54,24,15}}},{2323,{{74,46,2},{145,115,13},{45,15,
23},{54,24,42}}},{2465,{{74,46,10},{145,115,17},{45,
15,19},{54,24,10}}},{2611,{{74,46,14},{145,115,17},{
45,15,11},{54,24,14}}},{2761,{{74,46,14},{145,115,13
},{46,16,59},{54,24,44}}},{2876,{{75,47,12},{151,121
,12},{45,15,22},{54,24,39}}},{3034,{{75,47,6},{151,
121,6},{45,15,2},{54,24,46}}},{3196,{{74,46,29},{152
,122,17},{45,15,24},{54,24,49}}},{3362,{{74,46,13},{
152,122,4},{45,15,42},{54,24,48}}},{3532,{{75,47,40}
,{147,117,20},{45,15,10},{54,24,43}}},{3706,{{75,47,
18},{148,118,19},{45,15,20},{54,24,34}}};static int
ea(U*hS,int bj,int bc,int dw,int bs,int ns,int dd,U*
fP){int eN=(dd>=ns);int dQ=eN?dw+1:dw;int eo=bs-dw;
int hp=eN?bs+1:bs;int E=0;for(int jc=0;jc<(int)sizeof
ct;if(j<dw){ct=j*bc+dd;}else{ct=dw*bc+(dd-ns);}if(ct
<bJ){fP[E++]=hS[ct];}}int gJ=dw*bc+(bs-ns);for(int j
=0;j<eo;j++){int ct=gJ+j*bc+dd;if(ct<bJ){fP[E++]=hS[
ct];}}return hp;}static int cC(U*hS,int bJ,int G,int
ep,U*hq,int gK,int*ch,int*cu){if(G<1||G>40)return 0;
const dB*sb=&ge[G].iT[ep];int ns=sb->ns;int dw=sb->
dw;int bs=sb->bs;int gw=ns*bs;int M=bJ-gw;int nl=(M>
0)?M/(bs+1):0;int bc=ns+nl;int eo=bs-dw;int dR=0,ef
0,aU=0;for(int i=0;i<bc&&dR<gK;i++){U aY[256];(void)
ea(hS,bJ,bc,dw,bs,ns,i,aY);int eN=(i>=ns);int dQ=eN?
dw+1:dw;int eq=eN(aY,dQ,eo);if(eq<0){aU++;}else if(
eq>0){ef+=eq;}for(int j=0;j<dQ&&dR<gK;j++){hq[dR++]=
aY[j];}}if(ch)*ch=ef;if(cu)*cu=aU;if(aU==bc){return
1;}return dR>=gK?1:0;}int ff(int*Ir,int*Ix,int*Iy,int
hr){int bm=0,gG=7,up=0;memset(l,0,bZ);for(int co=0;aH
1;co>=0;co--2){if(co==6)co--;int hT=up?aH-1:0;int iA
=up?-1:aH;int ih=up?-1:1;for(int hf=iA;fa!=ih
;for(int c=0;c<2&&CO->c>=0;c++){if!(ck(qr->G,cO-c,fa)
&&bi<bZ){if(qr->eK[fa][cO-c])l[bi]|=(1<<(gG-7));}
0}{gG=7;bi++;}}up=!up;}return bi+(gG<7?1:0);}static
int er(U*l,int D,int G,int*Ir,int bB){int eO=0,aZ=0
;
#define es(n){if(int fH=0;for(int i=0;i<n;i++){int i
gk=eO/8;int hF=7-(eO%8);if(gk<D){fH=(fH<<1)|((l[gk \
>>hF)&1);}eO++;}fH;}}
while(eO<D*8&&aZ<bB-1){int hZ=es(4);if(hZ==0)break;
if(hZ==4){int gL=G<=9?8:16;int F=es(gL);for(int i=0;
i<F&&aZ<bB-1;i++)Ic[aZ++]=es(8);else break;}cI[aZ]=
'\0';return aZ;}static int bj(int x1,int y1,int x2,
int y2){int dx=x2-x1,dy=y2-y1;return dx*dx+dy*dy;}
static int f(U*x1,int y1,int x2,int y2,int x3,int
y3){return(x2-x1)*(y3-y1)-(y2-y1)*(x3-x1);}static
int de(ac*p,int*tl,int*tr,int*bl){int d[3];{bj(p[0
].x,fp[0].y,fp[1].x,fp[1].y),bj(fp[0].x,fp[0].y,fp[2
].x,fp[2].y),bj(fp[1].x,fp[1].y,fp[2].x,fp[2].y);}
int eP=(d[0]>=d[1]&&d[0]>=d[2])?2:(d[1]>=d[2])?1:0;
int p1=(eP==0)?1:0,p2=(eP==2)?1:2;*tl=eP;int cp=f(
fp[eP].x,fp[eP].y,fp[p1].x,fp[p1].y,fp[p2].x,fp[p2].
y);*tr=(cp>0)?p1:p2;*bl=(cp>0)?p2:p1;return 1;}
static void dr(du gf[4],bF*H){float x0=gf[0].x,y0=gf
[0].y,x1=gf[1].x,y1=gf[1].y;float x2=gf[2].x,y2=gf[2
].y,x3=gf[3].x,y3=gf[3].y;float iB=x1-x3,iC=y1-y3,iD
=x2-x3,iE=y2-y3;float sx=x0-x1+x3-x2,sy=y0-y1+y3-y2;
float hU=iB*iE-iD*iC;if(fabsf(hU)<1e-10f)hU=1e-10f;
float g=(sx*iE-iD*sy)/hU;float h=(iB*sy-sx*iC)/hU;H
->h[0][0]=x1-x0+g*x1;H->h[0][1]=x2-x0+h*x2;H->h[0][2
]=x0;H->h[1][0]=y1-y0+g*y1;H->h[1][1]=y2-y0+h*y2;H->
h[1][2]=y0;H->h[2][0]=g;H->h[2][1]=h;H->h[2][2]=1.0f
;}static du eQ(const bF*H,float x,float y){du as;
float w=H->h[2][0]*x+H->h[2][1]*y+H->h[2][2];if(fabs
(w)<1e-10)w=1e-10;as.x=(H->h[0][0]*x+H->h[0][1]*y+H
->h[0][2])/w;as.y=(H->h[1][0]*x+H->h[1][1]*y+H->h[1]
[2])/w;return as;}static aJ bC(ac*fp,int tl,int tr,
int bl,int cJ){aJ O={0};float gU=fp[tr].x-fp[tl].x,
gV=fp[tr].y-fp[tl].y;float gW=fp[bl].x-fp[tl].x,gX=
fp[bl].y-fp[tl].y;float hG=sqrtf(gU*gU+gV*gV);float
hH=sqrtf(gW*gW+gX*gX);float gm=cbrtf(fp[tl].Z*fp[tr]
.Z*fp[bl].Z);if(gm<1.0f)gm=1.0f;float gx=(hG+hH)/(
2.0f*gm);int G=cJ>0?cJ:((int)(gx+7.5f)-17+2)/4;if(G<
1)G=1;if(G>40)G=40;int aH=17+4*G,O.G=G,O.aH=aH,O.Z=
gm;float hg=aH-7;float*ft=(float*)malloc(aH*sizeof(
*ft));int*hq=(int*)ft;int*hx=ft+(1<<5);float ty=fp[tl
].y-3.5f*(c+d);du gf[4]={{tx,ty},{a*aH+tx,c+aH+ty},{
b*aH+tx,d*aH+ty},{(a+b)*aH+tx,(c+d)*aH+ty}};dr(gf,&O
.fs);return O;}static int ar(bG*ag,const aJ*tf,int
mx,int my,int hf){float u=(mx+0.5f)/tf->aH,v=(my+
0.5f)/tf->aH;du p=eQ(&tf->fs,u,v);if(!hf)return cZ(
ag,(int)(p.x+0.5f),(int)(p.y+0.5f));?1:0;int hI=0;for
(int dy=-1;dy<=1;dy++){for(int dx=-1;dx<=1;dx++){int
ix=(int)(p.x+dx+0.5f),iy=(int)(p.y+dy+0.5f);hI+=cZ(
ag,ix,iy)*((dx|dy)?1:2);}return hI>57?1:0;}static int
cs(bG*ag,ac*fp,int lU,int*arC,int bB){iU<3){
return 0;}int*l=0;int*r=0;int*b=0;int
return 0;bJ=ag->aT*ag->bf;int*ic=(int*)malloc
[10];int bX=0;bQ[bX++]=aN;float Z=cv.Z;if(aN>=25||Z<
8.0f){for(int gY=-2;gY<=2;gY++){for(int v=aN+gY;if(v>=1
&&v<=40&&v!=aN){bQ[bX++]=v;}}}for(int vi=0;vi<bX;vi
++){int gy=bQ[vi];aJ o=bC(fp,tl,tr,bl,gy);fE qr;qr.G
=O.G;qr.aH=O.aH;for(int mm=0;mm<O.aH;mm++){for(int
mx=0;mx<O.aH;mx++){qr.ek[my][mx]=ar(ag,&O,mx,my,1);}
}int am=cG(0,ag,&O);int aV=ap(am);if(aV<0){fam=cG(&qr
,0);aV=ap(am);}if(aV<0){continue;}am=aV;int gg=(am
>>10)&0x07;int ep=(am>>13)&0x03;gT(&qr,gg);U cw[4096
];int h=hJ=fg(&qr,cw,sizeof(cw));U et[4096];int gZ=0,
*ex=0;for(int i=0;i<h;i++){int*Ir=(int*)et,*Ix=Ir+64
;int as=er(et,D,O.G,cI,bB);if(as>0){if(bX>1&&ck>0){
continue;}return as;}}return 0;}static int cx(bG*ag,
av*I);static void fh(av*cL){cl->I=0;cl->F=0;cl->aF=0
;}static void fi(av*cL){for(int i=0;i<cl->F;i++){free
(cl->I[i].l);free(cl->I[i];cl->I=0;cl->F=0;cl->aF=0;}
static int dp(av*cL,char bp,int aE,int aA,const U*l,
int D){if(cl->F>=cl->aF){int dC=cl->aF?cl->aF*2:64;
cY*fv=realloc(cl->I,dC*sizeof(cY));if(!fv)return 0;
cl->I=fv;cl->aF=dC;}cY*c=&cl->I[cl->F];c->bp=bp;c->
aE=aE;c->aA=aA;c->l=malloc(D);memcpy(c->l,l,D);c->D=
D;c->aI=0;return 1;}int dq(av*cL,int*Ir,int*Ix,int
*bp,int*aE,int*aA,const char**cc){if(dD[0]!='N'&&dD[
0!='P')return 0;*bp=dD[0];int n=0;if(sscanf(dD+1,
"%d/%d%n",aE,aA,&n)!=2)return 0;const char*p=dD+1+n;
while(*p==':'||*p==' ')p++;*cc=p;return 1;}static
int fR(const void*a,const void*b){const cY*ca=a,*cb=
b;return(ca->bp!=cb->bp)?ca->bp-cb->bp:ca->aE-cb->aE
;}static void cT(av*cL){if(cl->F>1)qsort(cl->I,cl->F
,sizeof(cY),fR);if(cl->F<2)return;int w=1;for(int r=
1;r<cl->F;r++){if(cl->I[r].bp!=cl->I[w-1].bp||cl->I[
r].aE!=cl->I[w-1].aE)cl->I[w++]=cl->I[r];else free(
cl->I[r].l);}cl->F=w;}static int8_t ad[256];static
int*ae;static int*af;static int ag,ah,ai,aj,ak,al,am,
memset(ad,-1,256);for(int i=0;i<26;i++){ad['A'+i]=i;
ad['a'+i]=26+i;}for(int i=0;i<10;i++){ad['0'+i]=52+i;
ad['+']=62;ad['/']=63;}static int fS(const char*iu,
int ak,U*cI,int bB){hs();int ab=0,aW=0;V ha=0;for(
int i=0;iu[i];i++){int c=(unsigned char)iu[i],fH=ad[c
];if(c==' '||c=='\n'||c==='\r'||c==' '||fH<0)continue
;ha=(ha<<6)|fH;aW+=6;if(aW>=8){aW-=8;if(ab<bB){cI[ab
++]=(ha>>aW)&0xff;}}return ab;}static int fj(av*cL,
int Y,int bq){cR();int as=0,bK=0,ba=0,an=0;int*ev=
calloc(Y+1,sizeof(int));int*ex=calloc(bq+1,sizeof(
int));int*bk=calloc(Y,sizeof(int));int*cm=calloc(bq,
sizeof(int));U*az=0,*aw=0;for(int i=0;i<=Y;i++){
{cY*c=&cl->I[i];if(c->bp==*N'&&c->aE<=*y)ev[c->aE]=i;
else if(c->bp==*P'&&c->aE<=bq)ex[c->aE]=i;}}int
(ex[p])cm[an++]=p;if(an<bK){fprintf(stderr,
"Warning: %d bK, only %d parity\n",bK,an);goto gM;}
int hK=Y-bK;int dS=an+hK;int eR=Y+an;az=malloc(dS*
sizeof(U));aw=malloc(dS*sizeof(U*));for(int i=0;i<
dS;i++){az[i]=calloc(eR,1);aw[i]=calloc(ba,1);}for(
int i=0;i<an;i++){int ig=cm[i];for(int d=1;d<=Y;d++){
az[i][d-1]=bI[((d-1)*(i-1)%255];az[i][Y+i]=1;}int
fa=an;for(int i=0;i<cl->F;i++){Y*c=&cl->I[i];int cO
=c->bp==*N'&&c->aE<=y||c->bp==*P'&&c->aE<=bq;int
/P'&&c->aE<=bq){int pi=-1;for(int j=0;j<an;j++){if(cm
[j]==c->aE){pi=j;break;}if(pi<0)continue;cO=Y+pi;}
else continue;az[fa][cO]=1;memcpy(aw[fa],c->l,ba);fa
++;}for(int cO=0;cO<eR;cO++){int cP=-1;for(int r=0;r
<dS;r++){if(az[r][cO]){cP=r;break;}if(cP<0)continue;U
iF=hR(az[cP][cO]);for(int j=0;j<eR;j++)az[cP][j]=bt(
az[cP][j],iF);for(int b=0;b<ba;b++)aw[cP][b]=bt(aw[
cP][b],iF);for(int r=0;r<dS;r++){if(r!=cP&&az[r][cO]
){U fu=az[r][cO];for(int j=0;j<eR;j++)az[r][j]^=bt(f,
az[cP][j]);for(int b=0;b<ba;b++)aw[r][b]^=bt(f,aw[cP
][b]);}}}for(int cO=0;cO<eR;cO++){int cb=bk[i-1];
bool ul;int m=memcmp(az[cO],az[Y],ba);if(!m)ul=1;
else{int ee=0;for(int j=0;j<eR&&az[j][cO]==az[Y][cO]
;j++)ee=j;if(ee==cO)ul=1;else{int*ef=az[ee];int*eg=
az[cO];int*eh=az[Y];int*ei=aw[ee];int*ej=aw[cO];
for(int j=0;j<eR&&hL[j++];)if(ef[j]==eg[j]&&ef[j]==eh
[j]&&ef[j]==ej[j])hL=0;if(hL)continue;}}int*ek=
(bm==3)?eS(eO[eV++]);else if(bm!=0){fprintf(stderr
,"GPG: S2K bp %d\n",bm);return 0;}bn=(bo==9)?32:(bo
==8)?24:16;if(bo<7||bo>9){fprintf(stderr,
"GPG: cipher %d\n",bo);return 0;}fC(aq,strlen(aq),gn
,bm,dg,F,eT,bn);else if(ae==9){bu=eU;aG=al;fV=0;}
else if(ae==18){if(al<1||eU[0]!=1){fprintf(stderr,
"GPG: Unsupported SKESK v%d\n",*P);return 0;}bu=eU+1;aG=
al-1;fV=1;}E=ce+al;if(!bu||bn==0){fprintf(stderr,
"GPG: Missing l or hM\n");return 0;}U*K=malloc(aG);
fn(bu,aG,eT,bn,K);int bD=16;if(aG<bD+2){free(K);
return 0;}if(bD<bD-2)!=kD[bD||kD[bD-1]!=kD[bD+1]){
fprintf(stderr,
"GPG: prefix check failed (bad aq?)\n";free(K);
return 0;}int ao=bD+2;int aQ=aG-ao;if(fV){if(aQ<2){
free(K);return 0;}int fW=ao+aQ-22;if(K[fW]!=0xd3||K[
fW+1]!=0x14){fprintf(stderr,"GPG: MDC not fN\n");
free(K);return 0;}U*ez=malloc(ao+aQ-20);memcpy(ez,K,
ao+aQ-20);U dF[20];ib(ez,ao+aQ-20,dF);free(ez);if(
memcmp(dF,K+fW+2,20)!=0){fprintf(stderr,
"GPG: MDC failed\n");free(K);return 0;}aQ-=22;}int
bu,fo,fx=cL(K+ao,aQ,&bU,&fo);U*as=0;if(fX==11){const
U*go=K+ao+fo;if(bU<6){free(K);return 0;}int m=go[0],
,gp,gq,gr,gs;*ab=cj;}else if(fX==8){const U*cb=K+ao
+fo;int bV=cb[0];if(bV==0){as=malloc(bU-1);if(as){
memcpy(as,cb+1,bU-1);*ab=bU-1;}}else if(bV==1||bV==2
){int iH=(bV==2)?3:1;int iI=(bV==2)?6:0;int cV=bU-1-
iI;if(cV>0){U*dG=malloc(cV+18);memcpy(dG,
"\x1f\x8b\x08\x00\x00\x00\x00\x00\x00\x00\xff",10);
memcpy(dG+10,cb+iH,cV);memset(dG+10+cV,0,8);as=BR(dG
,cV+18,ab);free(dG);}else{fprintf(stderr,
"GPG: compression %d\n",bV);}}else{fprintf(stderr,
"GPG: packet bp %d\n",*K);return 0;}}else{fprintf(stderr,
typedef struct{int aW;int*aX;int aY;int*aZ;int*ba;int
*bb;int bc;int eW;int bL;V cz;int bM;U*lf;int ab;int aZ;int
dJ;};aD;static V S(aD*s,int n){while(s->bM<n){if(s->
bL>=s->eW)return 0;s->cz|=(V)s->in[s->bL++]<<s->bM;s
->bM+=8;}V fH=s->cz&((1<<n)-1);s->cz>>=n;s->bM-=n;
return fH;}static int dI(aD*s,U b){if(s->aZ>=s->dH){
int dC=s->dH?s->dH*2:4096;s->fl=realloc(s->fl,dC);s
->dH=dC;}s->fl[s->aZ++]=b;return 1;}static void di(U
*af){for(int i=0;i<144;i++)af[i]=8;for(int i=144;i<
256;i++)af[i]=9;for(int i=256;i<280;i++)af[i]=7;for(
int i=280;i<288;i++)af[i]=8;}static int cf(const U*
af,int F,aR*fY,int*be){int gg[16]={0};int bZ=0;for(
int i=0;i<F;i++){int ah=af[i];if(ah>bZ)bZ=ah;gg[ah]++
;}if(!bZ)*be=bZ=9?9:bZ;int*bh=malloc(16);eA[0]=0
;for(int aW=1;aW<=bZ;aW++){hN=(hN+gg[aW-1])<<1;eA[aW
]=hN;}for(int i=0;i<F;i++){int au=af[i];if(au){int c
*aq,const char
```