double \* chase\_algorithm(double \*a, double \*b, double \*c, int n, double \*d)

{

double \* ans,\*g,\*w,p;

int i;

ans=(double \*)malloc(sizeof(double)\*n);

g=(double \*)malloc(sizeof(double)\*n);

w=(double \*)malloc(sizeof(double)\*n);

g[0]=d[0]/b[0]; //g is y; w is beta

w[0]=c[0]/b[0];

for(i=1;i<n;i++)

{

p=b[i]-a[i]\*w[i-1];

g[i]=(d[i]-a[i]\*g[i-1])/p;

w[i]=c[i]/p;

}

ans[n-1]=g[n-1];

i=n-2;

do

{

ans[i]=g[i]-w[i]\*ans[i+1];

i=i-1;

}

while(i>=0);

free(g);

free(w);

return ans;

}