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%DDA method-Arbitrary line
%using Matrix
clc;close all;clear all
x1=input('Enter x-start value: ');
y1=input('Enter y-start value: ');
x2=input('Enter x-end value : ');
y2=input('Enter y-end value : ');
i=0;

dx=(x2-x1);
dy=(y2-y1);
if (abs(dx)>=abs(dy))
    length=abs(dx);
else
    length=abs(dy);
end
xinc=dx/length;
yinc=dy/length;
x=x1;
y=y1;

j=1;
a(j)=x;
c(j)=y;

while (i<=length)

    x=x+xinc;
    y=y+yinc;
    i=i+1;

    j=j+1;
    a(j)=x;
    c(j)=y;

end
axis([0 20 0 20]);
hold on
plot(a,c,'--gs')

```