

---

```
clear all
close all
clc
```

## Variables

```
y=.05e-6;
x=linspace(-0.5e-6, 0.5e-6, 1000);
b=2.5e-10;
G=82e9;
nu=.30;
D=(-G*b)/(2*pi*(1-nu));
```

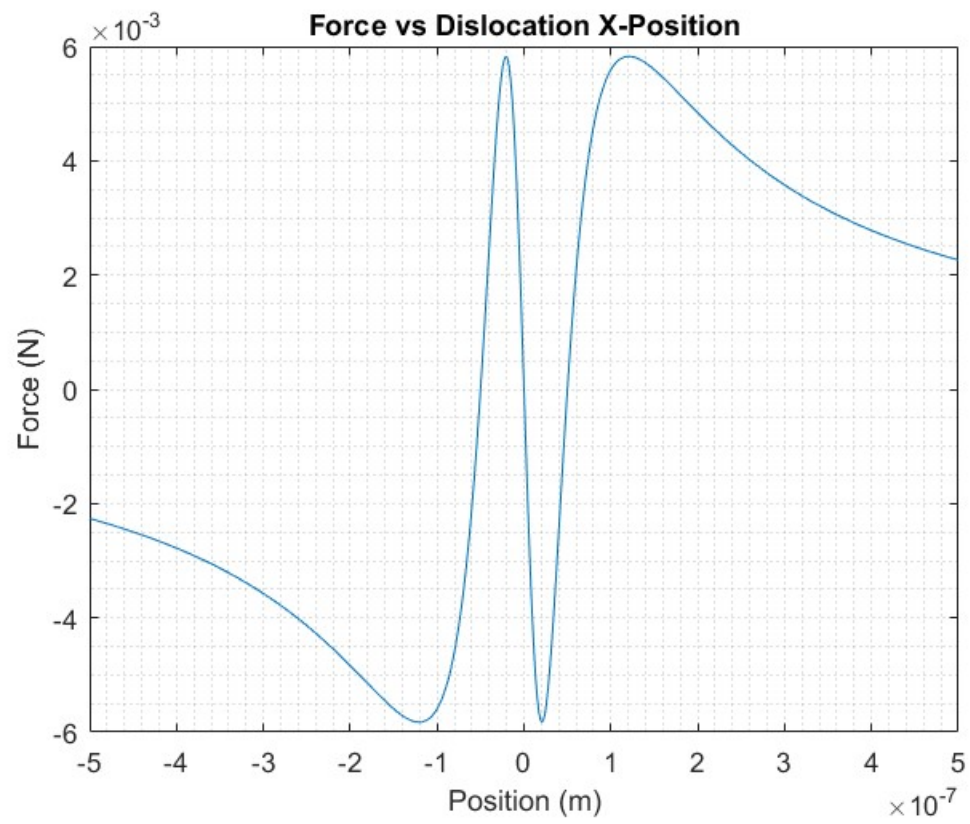
## Solve

```
for i=1:length(x)

    sig_xy(i)=D*(x(i)*((y^2)-(x(i)^2))/(((x(i)^2)+(y^2))^2));
end

Fxy=sig_xy.*b;

plot(x, Fxy)
grid minor
xlabel('Position (m)')
ylabel('Force (N)')
title('Force vs Dislocation X-Position')
```



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