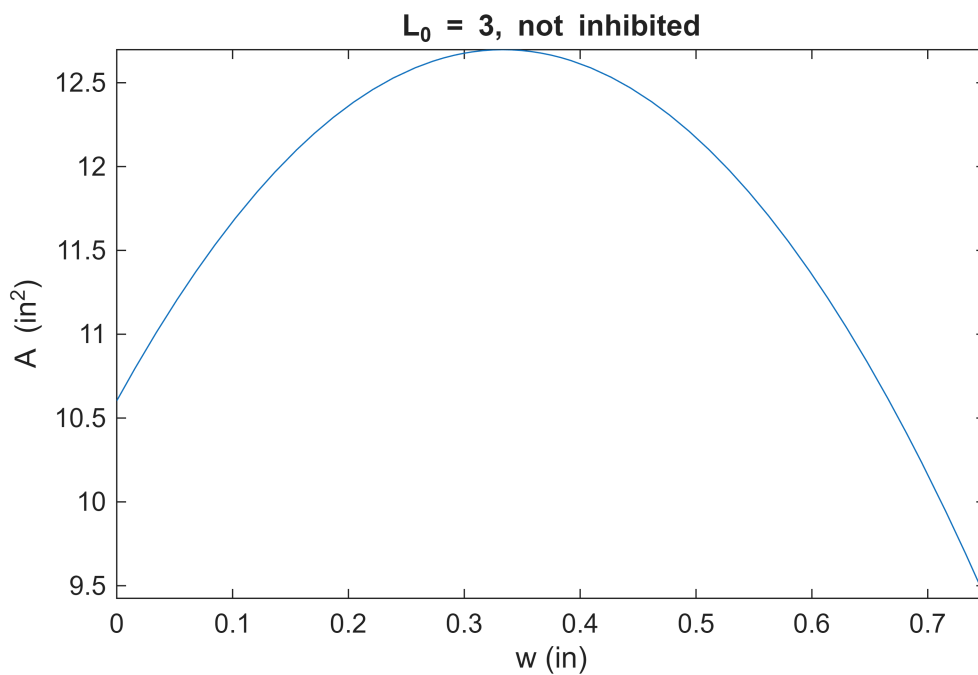```
clear; clc; close all; clf;

r_f = 1;
r_i = 0.25;
l_0 = 3;

A_1 = @(w) 2*pi*(r_f^2 - (r_i+w).^2 + (r_i+w).*(l_0 - 2.*w));

A_2 = @(w) 2*pi.*(r_i+w).*(l_0 - 2.*w);

fplot(A_1,[0 0.75])
xlabel('w (in)')
ylabel('A (in^2)')
title('L_0 = 3, not inhibited')
```
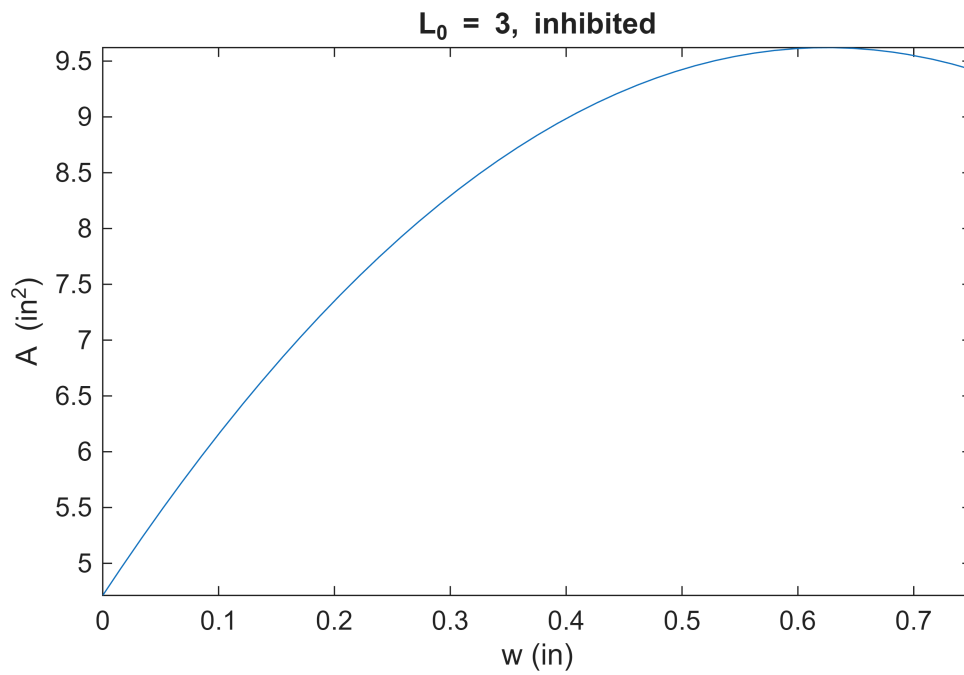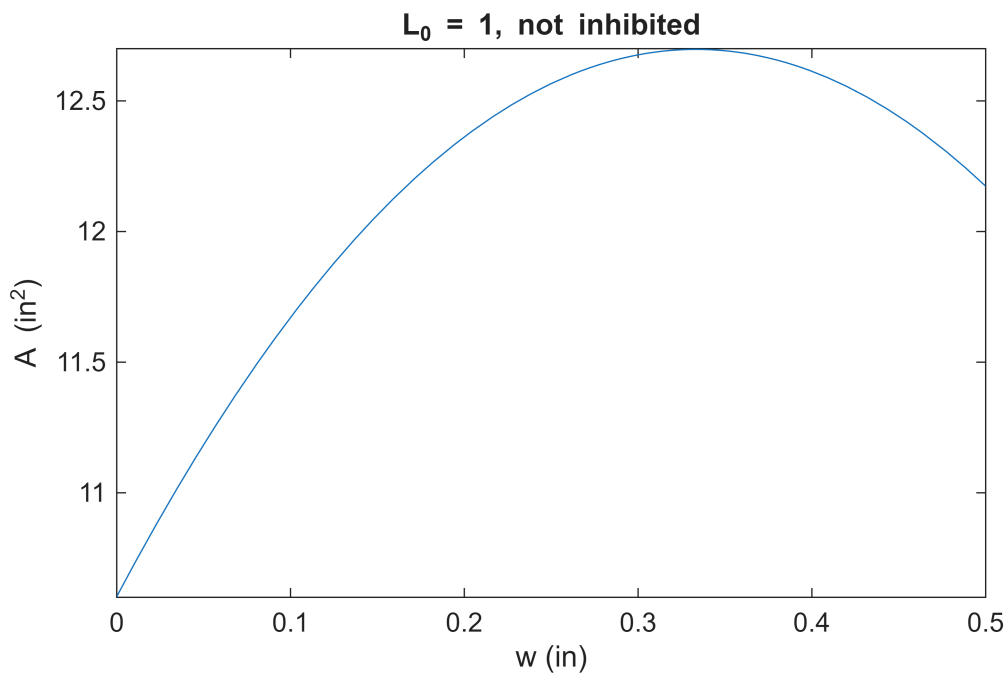


```
fplot(A_2,[0 0.75])
xlabel('w (in)')
ylabel('A (in^2)')
title('L_0 = 3, inhibited')
```

1

$L_0 = 3$, inhibited

```
l_0 = 1;

fplot(A_1,[0 0.5])
xlabel('w (in)')
ylabel('A (in^2)')
title('L_0 = 1, not inhibited')
```


$L_0 = 1$, not inhibited

```
fplot(A_2,[0 0.75])
```

```
xlabel('w (in)')
ylabel('A (in^2)')
title('L_0 = 1, inhibited')
```

L₀ = 1, inhibited