



---

```
% Bode, Nyquist and Root Locus
```

```
sys = tf([-2 -1],[1 5 3])
```

```
figure(1)
```

```
pzmap(sys)
```

```
grid
```

```
figure(2)
```

```
margin(sys)
```

```
[Gm,Pm,Wcg,Wcp] = margin(sys)
```

```
grid
```

```
figure(3)
```

```
nyquist(sys)
```

```
grid
```

```
figure(4)
```

```
rlocus(sys)
```

```
grid
```

```
figure(5)
```

```
step(sys)
```

```
grid
```

```
stepinfo(sys)
```

```
sys =
```

$$\frac{-2s - 1}{s^2 + 5s + 3}$$

*Continuous-time transfer function.*

```
Gm =
```

*2.5000*

```
Pm =
```

*Inf*

```
Wcg =
```

*0.7071*

```
Wcp =
```

*NaN*

```
ans =
```

---

struct with fields:

```
RiseTime: 0.2360
SettlingTime: 4.5302
SettlingMin: -0.4075
SettlingMax: -0.3022
Overshoot: 22.2557
Undershoot: 0
Peak: 0.4075
PeakTime: 0.8134
```





