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### Problem 4.1.2

```
b = [0 0 0.64];  
a = [1 -0.8];  
delta = [1 0 0 0 0 0 0];  
x_inv = filter(b, a, delta)
```

```
n = 0:6;  
x = 0.8.^n.*(n>=2)
```

*x\_inv* =

0            0        0.6400        0.5120        0.4096        0.3277        0.2621

*x* =

0            0        0.6400        0.5120        0.4096        0.3277        0.2621

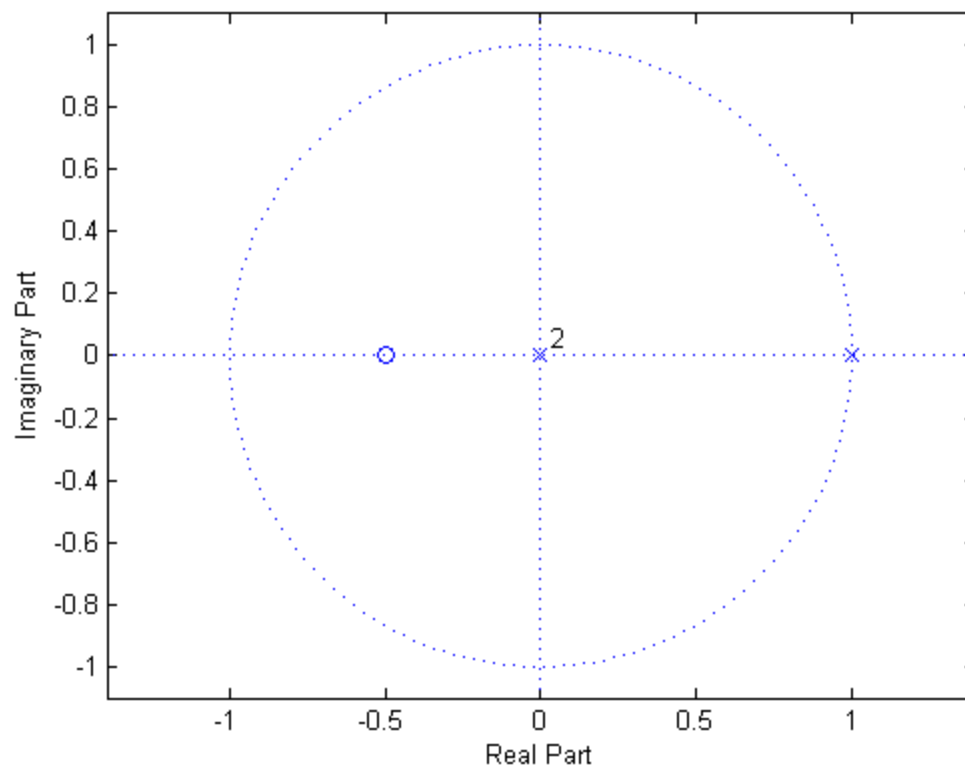
### Problem 4.3.1

```
b = [0 0 2 1];  
a = [1 -1];  
x_inv = filter(b, a, delta)
```

```
zplane(b, a)
```

*x\_inv* =

0        0        2        3        3        3        3



## Problem 4.3.2

```
b = [3 1.1045];
a = [1 -0.8817 0.5625];
x_inv = filter(b, a, delta)
```

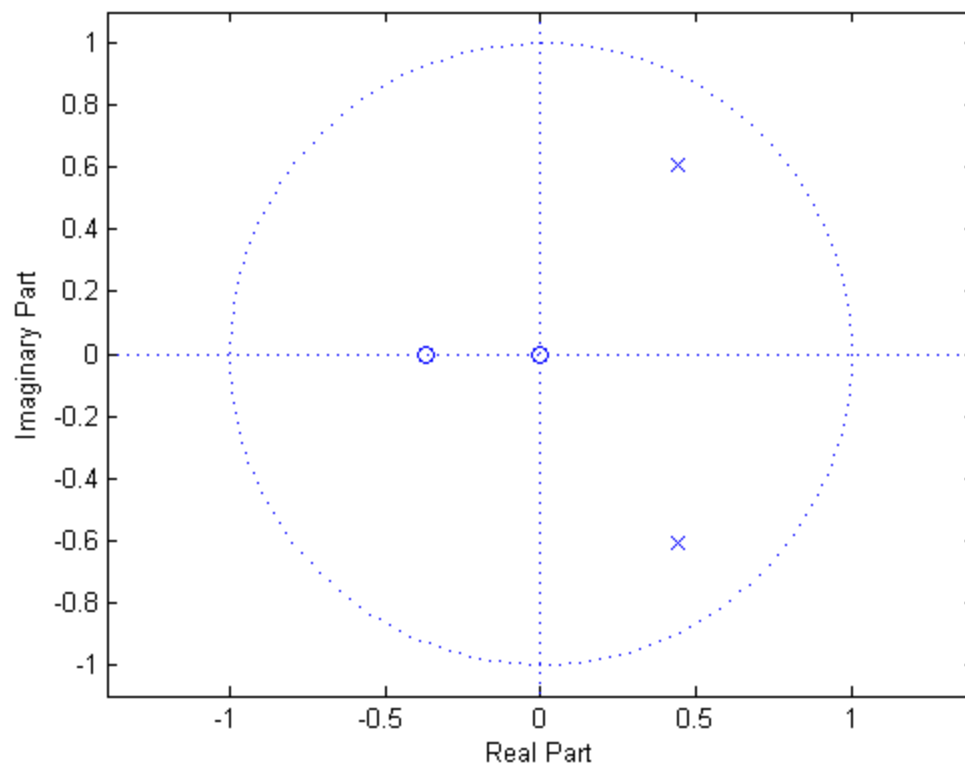
```
x = 3*(0.75.^n).*cos(0.3*pi.*n) + 4*(0.75.^n).*sin(0.3*pi.*n)
zplane(b, a)
```

```
x_inv =
```

```
3.0000    3.7496    1.6185   -0.6821   -1.5118   -0.9493    0.0134
```

```
x =
```

```
3.0000    3.7496    1.6184   -0.6822   -1.5118   -0.9492    0.0135
```



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