

MatLab Can Help

- Define zeros: `zzz = [exp(j * 0.5*pi), exp(-j * 0.5*pi)]`
- Create a polynomial with specified roots: `bk = poly(zzz)`
 - Also `roots(bk)` returns the roots of a polynomial in descending powers of z
- Use `fvtool(...)` for $H(w)$, P/Z plot, $h[n]$ plot...

```
zzz = [exp(j * 0.5*pi), exp(-j * 0.5*pi)];  
bk = poly(zzz);
```

```
prad = 0.9;  
ppp = [prad * exp(j * 0.5*pi), prad * exp(-j * 0.5*pi)];  
ak = poly(ppp);
```

```
fs = 16000;  
fvtool(bk,ak,'Fs',fs)
```

```
fvtool([b0, b1, b2],[1, -a1, -a2],'Fs',16000)
```

Opposite the values used in
the difference equation