Example

$$G(s) = \frac{1}{(s+1)(s+2)} \qquad \text{(no open-loop RHP poles)}$$

Strategy:

- Start with the Bode plot of G
- Use the Bode plot to graph $\operatorname{Im} G(j\omega)$ vs. $\operatorname{Re} G(j\omega)$ for $0 \leq \omega < \infty$
- This gives only a *portion* of the entire Nyquist plot

$$(\operatorname{Re} G(j\omega), \operatorname{Im} G(j\omega)), \qquad -\infty < \omega < \infty$$

- Symmetry:

$$G(-j\omega) = \overline{G(j\omega)}$$

— Nyquist plots are always *symmetric w.r.t. the real axis*!!