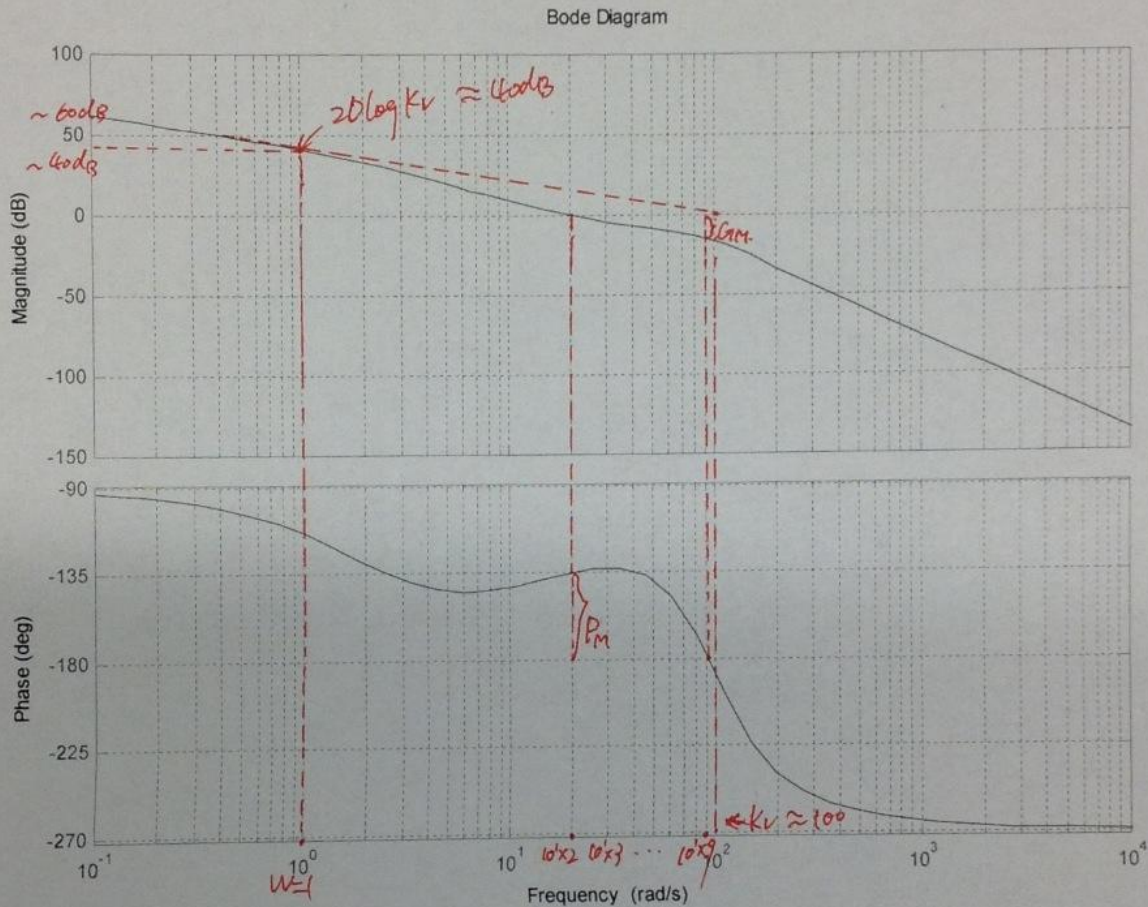


EE 475 Quiz #11

Name: key



- Determine the system type: type 1
- Determine the position error constant: ∞
- Determine the velocity error constant: ≈ 100 or 40 dB
- Determine the acceleration error constant: 0
- Determine the ess to step input: 0
- Determine the ess to ramp input: $1/100$
- Determine gain cross-over frequency: 20 rad/s
- Determine phase cross-over frequency: 90 rad/s
- Determine gain margin: $\approx 15-20 \text{ dB}$ or $5.6-10$
- Determine phase margin: 45 deg

$(40 \text{ dB} = 20 \log(100))$