Lecture 25 -- Feedback Practice and Oscillators

What determines if a two-pole op-amp is unity gain stable? Support with a Bode Plot.

What is the condition for an oscillator to oscillate in negative feedback?

What is the condition for an oscillator for to oscillate in positive feedback?

Draw a phase shift oscillator and write a formula for its oscillation frequency

What gain is required around the loop for a phase shift oscillator?

Draw a Colpitts oscillator and a block diagram representing it

Write a formula for a Colpitts oscillator oscillation frequency

What gm is required for a Colpitts oscillator? What does that imply about its biasing?

What is a describing function and what is it used for?