Special Problem 2.7-1

You design an amplifier with gain A_v =**10**, using an op-amp with a **unity gain bandwidth of 10 MHz**.

1)   What is the **bandwidth** of this amplifier?

A sinusoidal signal with **frequency 10 kHz** and **magnitude of 1.0** is input to this amplifier.

2)   What is the **magnitude** of the **output** signal?

A sinusoidal signal with a **new frequency** of **10 MHz** and magnitude of 1.0 is input to this amplifier.

3)   What is the **magnitude** of the **output** signal?

You now **redesign** the amplifier such that the **gain** is now A_v = **20**.

 4)   What is the **bandwidth** of this amplifier?