

Physics 261

Homework # 7

Remember to show your work.

1. Faissler, problem 28-1.
2. Faissler, problem 28-2. The inverting amp is covered in the text even though we didn't discuss it in lecture.
3. Faissler, problem 28-3.
4. Faissler, problem 28-4.
5. You need to produce a very stable instrumentation amplifier that will operate on battery power in the field, recharged daily by solar cells, for several years. Your research student has proposed two options: a common-emitter amp using a BJT, or an inverting op-amp design such as that in figure 28-5. Which of these two designs is least sensitive to fluctuations in the power supply? Justify your answer, and explain what aspect of the design makes it insensitive to its power supply.