Lecture 22 -- References

What is the definition of sensitivity

What is the sensitivity of Iout to supply in a resistor-diode biased simple current mirror?

Draw a Widlar current source

What's the difference between a current source and a current mirror?

Draw a Vbe reference

Draw a self-biased reference. Why do self-biased references need startup circuits?

What's the definition of temperature coefficient?

Draw a cartoon showing the strategy for constructing a bandgap reference. What are band gap references used for?

What do CTAT and PTAT mean? What are the temperature coefficients of Vbe and phi_T?

Draw a practical implementation of a band gap reference

What is the output voltage of a band gap reference?

What is the shape of a band gap reference output voltage vs. temperature curve?

How do you make band gap references in CMOS circuits?