

Most advanced microprocessors contain a separate pipeline for floating point calculations. These pipelines implement the IEEE 754 floating point standard.

1. **Research** the IEEE 754 floating point standard. How does it encode floating point numbers? How are calculations completed?
2. **Write** a short essay describing IEEE 754. Include the difference between single and double precision.
3. **Use IEEE 754 single-precision floating point format** to encode -30.5, 16.25, -8.078125, 0, and $\pm\infty$.
3. **Write** a short essay describing the Pentium processor implementation of IEEE 754. **Focus** on the circuitry as well as the historical error that made this part of Pentium famous!

Remember that plagiarism is a serious breach of your academic honesty policy.

Complete your research and **write original** two to three page essays describing what you discovered.

Due date: These essays and calculations are due in a PDF format emailed by 5 p.m. Monday Week 4.