

Computer Architecture—Homework VII

107 Fall semester, Chapter 10

- 10.25 Consider a reduced 7-bit IEEE floating-point format, with 3 bits for the exponent and 3 bits for the significand. List all 127 values.

- 10.22 Assume that the exponent e is constrained to lie in the range $0 \dots e \dots X$, with a bias of q , that the base is b , and that the significand is p digits in length.
- (a) What are the largest and smallest positive values that can be written?
 - (b) What are the largest and smallest positive values that can be written as normalized floating-point numbers?