CSC 137 Homework #1

1.3 -5.375 $5 = 101$ $.375 = .011$

$= 101.011$

1.01011×2^2 $= 1 \mid 1001 \mid 01011000000$

$2 + 7 = 9$

$= 1001$

1.4 0×3400

$= 0011101 \; 000 \; 000 \; 000 \; 0$

$7 - 6 = 1$

$1 \cdot 2^{-1} = 0.5$

$-1^0 \cdot 1.5 \times 2^{-1} =$ $= 0.75$

0.75

1.5 0×3400

$= 0011101 \; 000 \; 000 \; 000$

4 bit exp $= 0110$

base 8

$6 - 8 = -2$

$1 \times 2^{-1} = 0.5$ $= 0.375$

$-1^0 \cdot 1.5 \cdot 2^{-2}$

$= 3/8$

1.14 It is a limitation on throughput caused by the standard personal computer architecture.