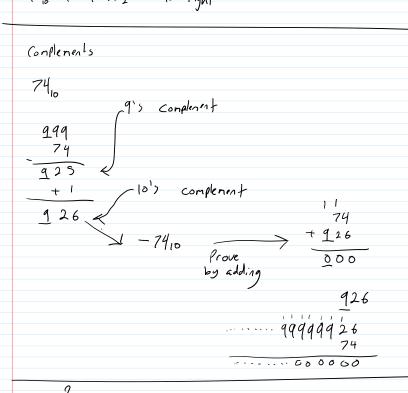
Lecture Notes 9/4 floating pint conversion 
$$\frac{1}{127}$$
  $\frac{1}{100}$   $\frac{1238}{127}$   $\frac{1}{100}$   $\frac{1238}{7128}$   $\frac{12716}{1000}$   $\frac{1}{1000}$ 

$$5_{10} \rightarrow 101_{2}$$
  $101_{2} \times 2^{1}$   $101_{10} \times 101_{2}$   $101_{10} \times 2^{1}$ 



Convert floats

7.  $I_{10}$  decimal  $I_{10} \rightarrow I_{10} \rightarrow$ 

$$\text{Prof} \rightarrow \frac{16 + 4_{16}^2}{16} = \frac{16}{15} = \frac{4_{16}}{16} + \frac{4_{240}}{240} = \frac{15 + 4_{16}}{240} = \frac{24}{240} = \frac{24_{10}}{10} = \frac{1}{10}$$

$$.2_{10} \stackrel{\text{"}}{=} 2 \times 16 = 3.2$$

$$.2 \times 16 = 3.2$$

$$.2_{10} = .3_{16}$$

$$= 7/6 + 7/6^{2}$$

$$\frac{3}{6} = \frac{3}{2} \times \frac{16^{6}}{16^{3}} = \frac{3}{2} \times \frac{16^{1}}{16^{3}} = \frac{3}{2} \times \frac{16^{1}}{16^{$$

4 byte float

((Power 1)

Charactristic

mantissa

+127 Shifted by 127

$$\frac{1}{100} = \frac{10}{100} = \frac{00010011001}{1001100110011001}$$

$$\frac{0011111001}{300100100110011} = \frac{001100110011}{001100110011} = \frac{001100110011}{001110011} = \frac{001100110011}{00110011} = \frac{001100110011}{00110011} = \frac{0011100110011}{00110011} = \frac{001100110011}{00110011} = \frac{0011001100110011}{00110011} = \frac{0011001100110011}{00110011} = \frac{0011001100110011}{00110011} = \frac{0011001100110011}{00110011} = \frac{001100110011}{$$

$$7.2 = 7.7_{10} = 0111.0011.0011 = 0111.0011.0011 \times 2^{2}$$