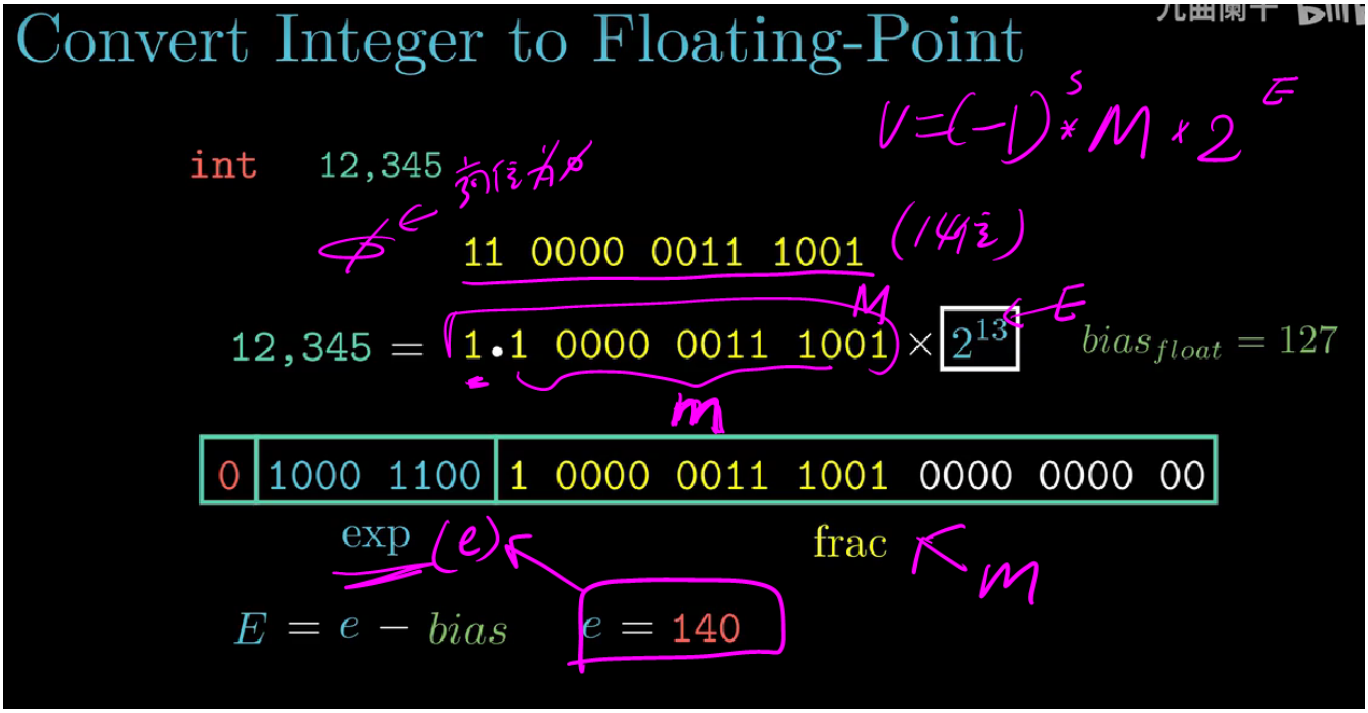
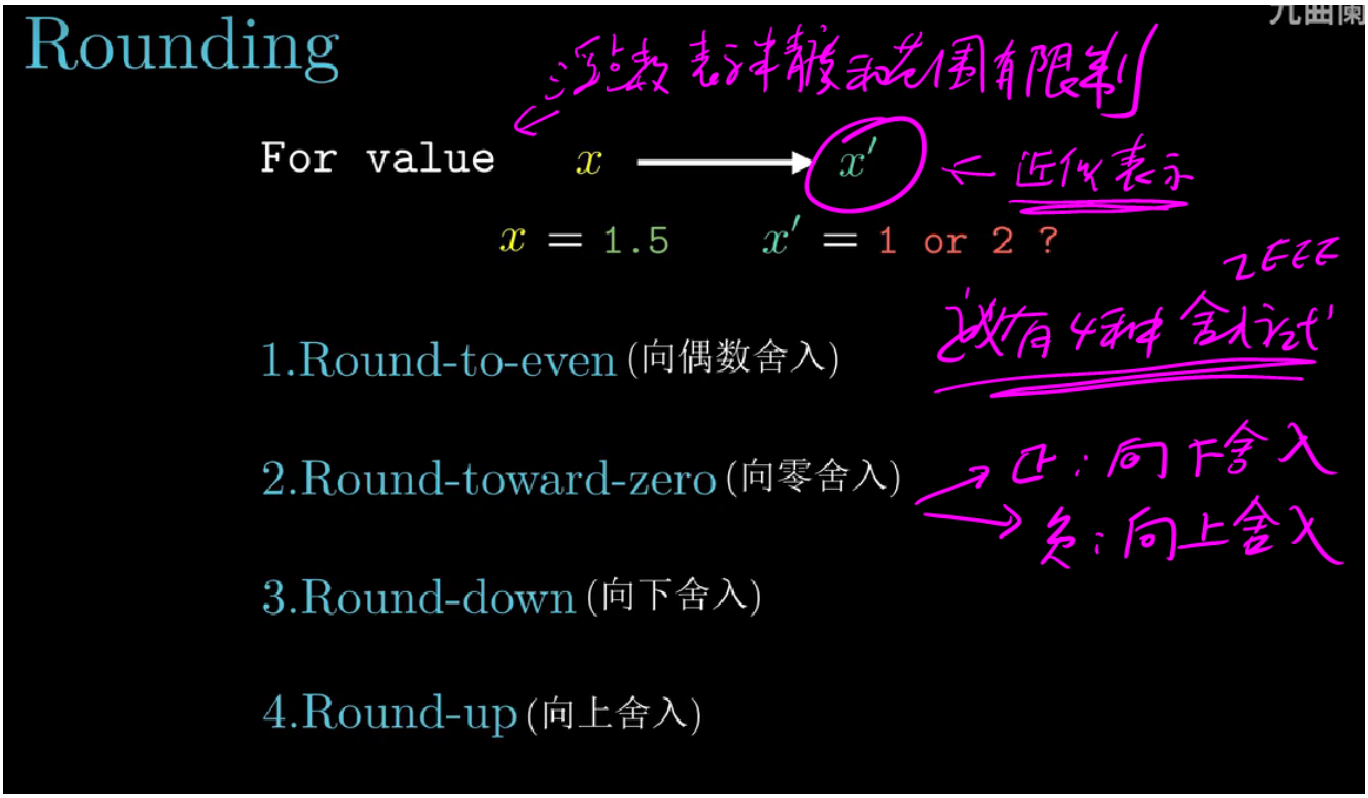
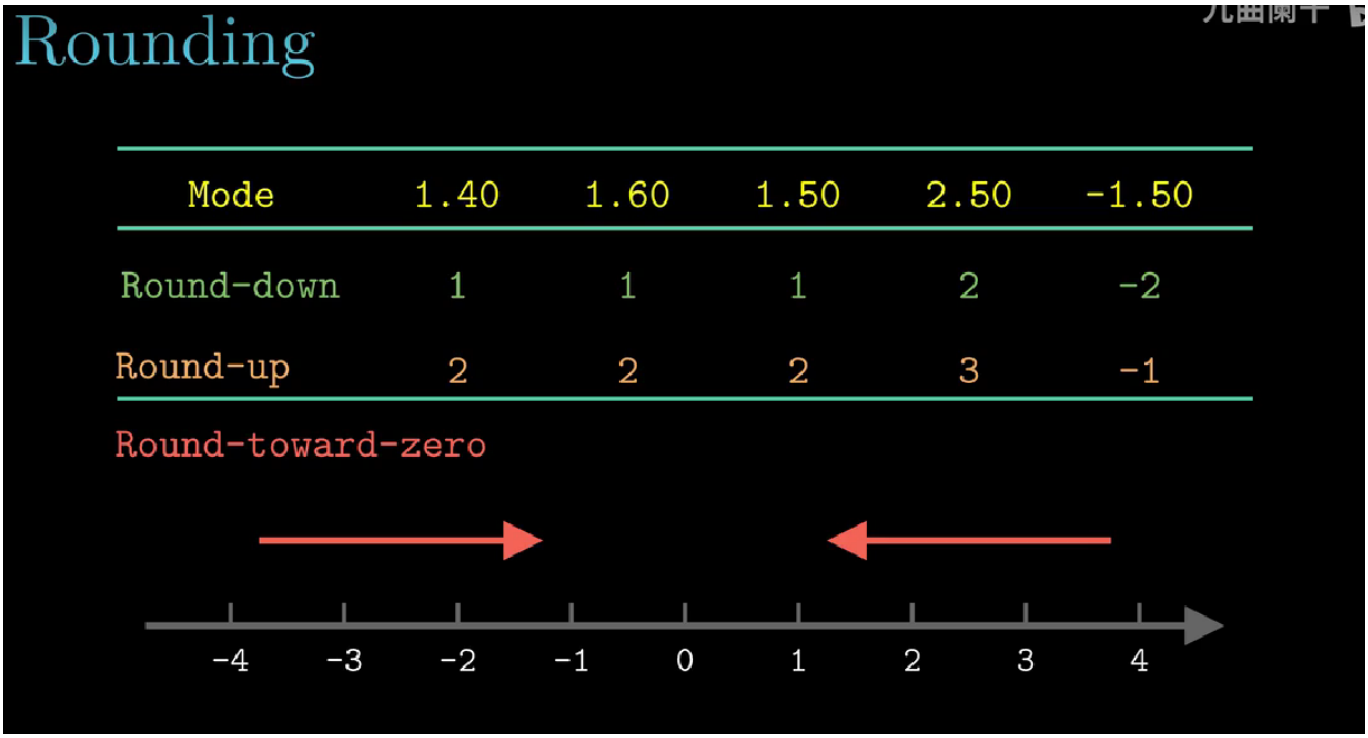
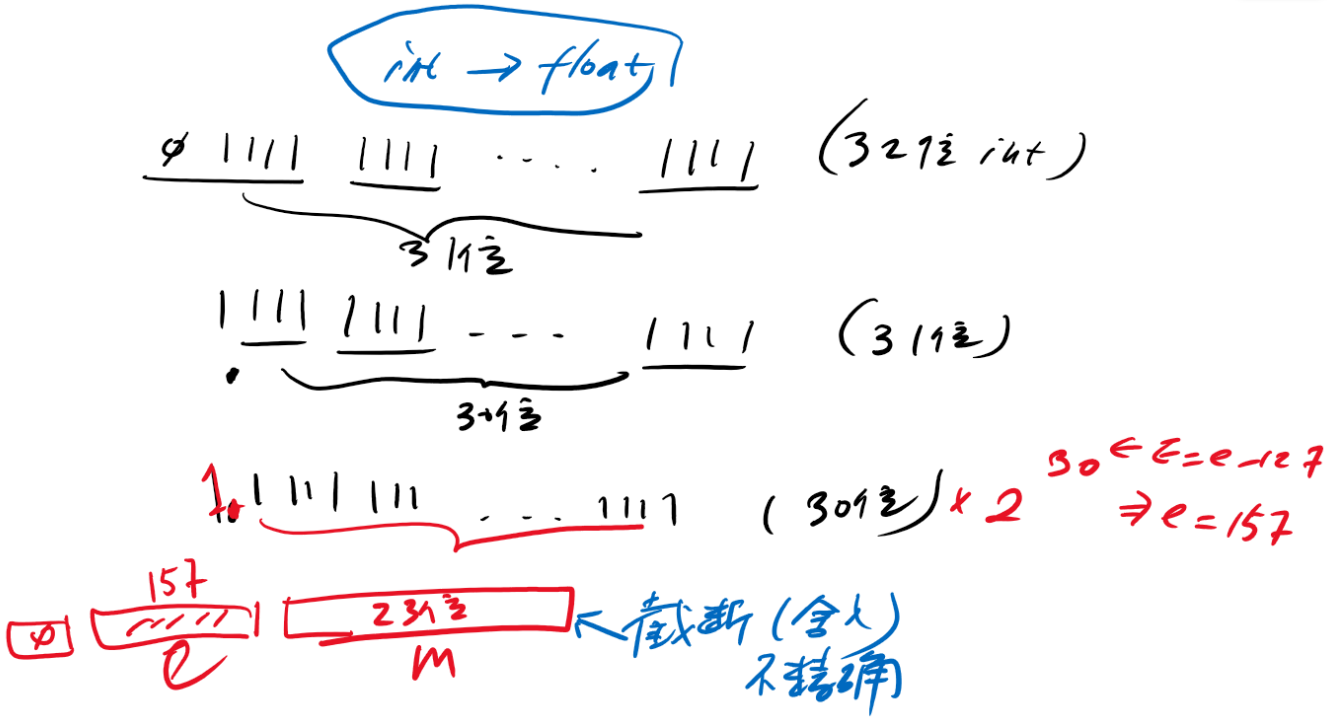
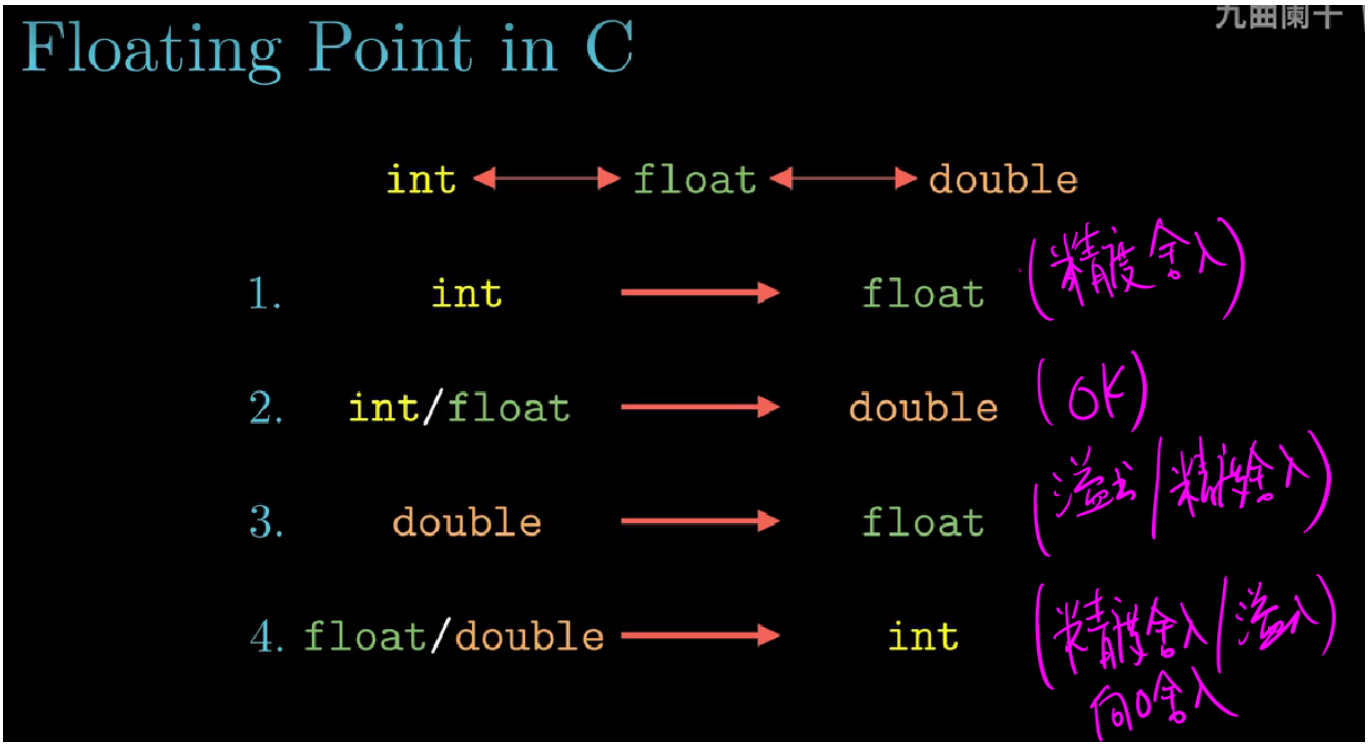

Convert Integer to Floating-Point
int 12,345
11 0000 0011 1001
12,345 = 1.1 0000 0011 1001 × 2^13
bias_float = 127
0 | 1000 1100 | 1 0000 0011 1001 0000 0000 00
exp
frac
E = e − bias
e = 140


Rounding
For value x → x'
x = 1.5 x' = 1 or 2 ?
1.Round-to-even (向偶数舍入)
2.Round-toward-zero (向零舍入)
3.Round-down (向下舍入)
4.Round-up (向上舍入)



int => float转换，会存在精度问题，不存在溢出问题。




Floating Point in C
九曲阑干
int ⟷ float ⟷ double
1. int → float (精度会入)
2. int/float → double (OK)
3. double → float (溢出/精度会入)
4. float/double → int (精度会入/溢出 向0舍入)