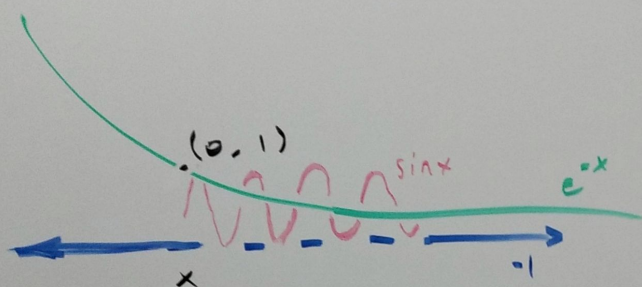


$$f(x) = e^{-x} + \sin x - 1$$



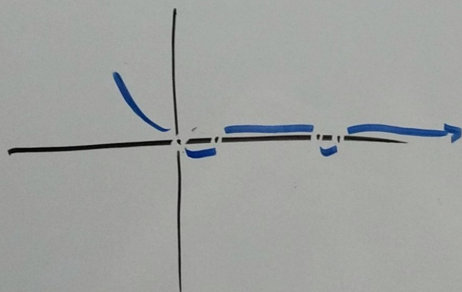
ROOTS OF $f(x)$:

$$x_1 = 0$$

$$x_2 \approx 2.08$$

$$x_3 \approx 7.83$$

$$x_4 \approx 7.88$$



IN GENERAL,

CANCELLATION OCCURS
WHEN TWO P-DIGIT
FLOATING POINT NUMBERS
HAVING

1) SAME SIGN

2) SIMILAR MAGNITUDES
ARE SUBTRACTED

~~ANY TIME A FUNCTION OF
SUM 0~~

ANY TIME A FUNCTION
THAT IS A SUM OF
TERMS IS NEAR ZERO,
THERE IS A POTENTIAL FOR
CANCELLATION ERROR