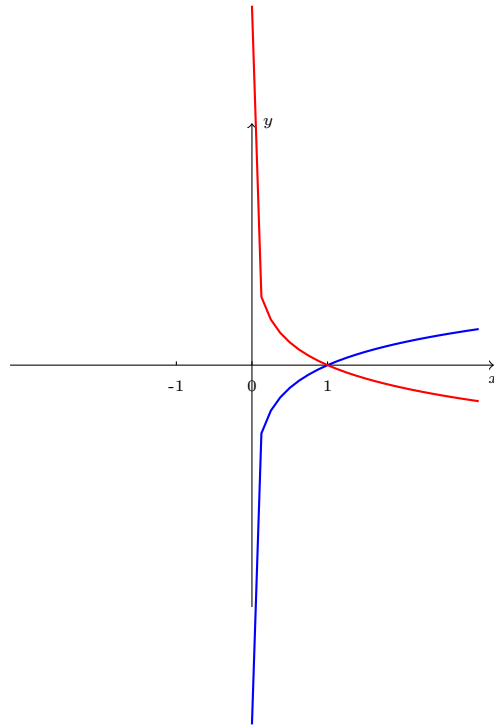


# SOEN6011 Team F

Yanzhen Li

Logarithmic function :  $f(x) = \log_a X$

Student id: 40054428



BLUE LINE :  $f(x) = \log_{10} X$

RED LINE :  $f(x) = \log_{0.5} X$

DOMAIN:  $a: (0, 1) \cup (1, +\infty)$   $X : (0, +\infty)$

CO-DOMAIN:  $\mathbb{R}$

CHARACTERISTICS:

Fixed point: Function image is always over fixed point  $(1,0)$ .

Monotonicity: when  $a > 1$ , it is a monotonic increasing function in the domain of definition.

Parity: Non-odd and Non-even Functions

Periodicity: not a periodic function

Symmetry: None

Null point:  $X=1$