

Consider ODE

$$|u'| - 1 = 0, \text{ on } (-1, 1), \quad u(\pm 1) = 0.$$

- Prove that  $u(x) = |x| - 1$  is a viscosity solution.
- Can you prove comparison principle?

Consider

$$\inf_{a \in (-1, 1)} \{(1 + a^2)u''\} = 0, \text{ on } (-1, 1).$$

Is it uniformly elliptic?