**Inception Score (IS)**

Introduced in (Salimans, Tim et al. “Improved Techniques for Training GANs”) NIPS(2016)



* P(y|x) is evaluated with Inception model
  + If the x(image) is recognizable as y(label), p(y|x) should have **low entropy**
* P(y) is evaluated with marginal
  + If model outputs diverse images, p(y) should have **high entropy**
* **Higher is better**

**Frechet Inception Distance (FID)**

Introduced in (Heusel, Martin et al. “GANs Trained by a Two Time-Scale Update Rule Converge to a Local Nash Equilibrium”) NIPS(2017)



* Improves IS by actually comparing the statistics of generated samples to real samples
* **Lower is better**