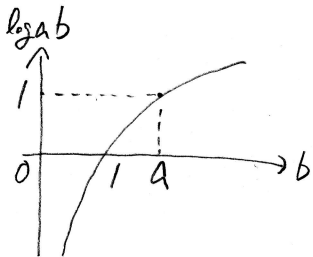


$$\alpha + \beta = 2 \log ab, \quad \alpha\beta = \log ba$$

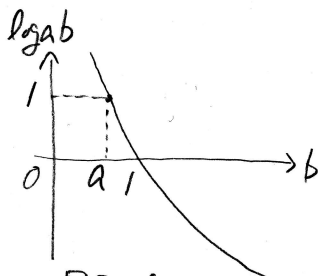
$$\log ab > 0$$



(i) $a > 1$ かつ

② $b > 1$

① ($a > 1$ かつ)



(ii) $a < 1$ かつ

② $b < 1$

② ($a < 1$ かつ)

$$\log ab = k \text{ かつ } k < 1, \quad \alpha + \beta = 2k, \quad \alpha\beta = \frac{1}{k}$$

$$(\alpha - \beta)^2 = (\alpha + \beta)^2 - 4\alpha\beta = 4k^2 - \frac{4}{k} = \frac{4}{k}(k^3 - 1), \quad k > 1, \quad \log ab > 1$$

(i) $a > 1$ かつ $b > a$

(ii) $a < 1$ かつ $b < a$

② $1 < a < b$ かつ $b < a < 1$