Contrapositive Equivalence

Reference:
Hub, A., & Dawkins, P. C. (2018). On the construction of set-based meanings for the truth of mathematical conditionals. *The Journal of Mathematical Behavior, 50*, 90-102.

Consider the conjecture below.

> The implication $P \to Q$ is **logically equivalent** to the implication $\sim Q \to \sim P$.

Discuss the following questions with your group.

1. What do you think it means for two statements to be *logically equivalent*?
2. What can be said about the truth sets of two statements that are logically equivalent?
3. How might we argue that the above conjecture must be true for any statements P and Q?