If you wear Orange then I will wear Maroon
Which of the following statements are equivalent to the statement above?

Let O be the statement “You wear orange.”
Let M be the statement “I will wear Maroon.”
So the original statement is  \( O \rightarrow M, \)

1) For me to wear maroon, it is sufficient for you wear orange.
\( O \rightarrow M, \)

2) Wearing orange is necessary for me to wear maroon
\( M \rightarrow O \)

3) Only if I wear maroon will you wear orange.
\( O \rightarrow M, \)

4) You wearing orange means that I am wearing maroon.
\( O \rightarrow M, \)

5) If I wear maroon then you wear orange.
\( M \rightarrow O \)

6) You must wear orange in order for me to wear maroon.
\( M \rightarrow O \)

7) I must wear maroon in order for you wear orange.
\( O \rightarrow M, \)

8) You are not wearing orange or I am wearing maroon.
\( \sim o \sim O \lor M \equiv O \rightarrow M \)

9) Wearing maroon myself is necessary for you to wear orange.
\( O \rightarrow M, \)

10) If I do not wear maroon, then you do not wear orange.
\( \sim M \rightarrow \sim O \equiv O \rightarrow M \)

11) You are wearing orange and I am not wearing maroon.
\( O \land \sim M \equiv \sim (O \rightarrow M) \)

12) I am wearing maroon indicates that you are wearing orange.
\( M \rightarrow O \)