

Quiz 1: Section 1.1

1. (6 points) Let s be the following statement.

If it is raining, then the ground is wet.

- (a) Find the converse of s .
- (b) Find the contrapositive of s .

2. (4 points) Mathematicians say that “statement P is *stronger* than statement Q ” if Q is true whenever P is true, but not conversely. (In other words, “ P is stronger than Q ” means that $P \rightarrow Q$ is always true, but $Q \rightarrow P$ is not true, in general.) Which statement is stronger?

- Manchester City is the best football team in England.
- Manchester City is the best football team in Europe.

Explain.