For each of the following a set of hypotheses are given and a conclusion is given. Use the hypotheses to prove the conclusion. The key item to focus on is clarity of your explanation.

1. Hypothesis 1: $x > 10$
   Hypothesis 2: $y > 3$
   Conclusion: $x + y^2 > 19$

2. Hypothesis 1: $ac$ divides $bc$
   Conclusion: $a$ divides $b$
3. Hypothesis 1: \( x \) is even.
   Hypothesis 2: \( y \) is odd.
   Conclusion: \( 3xy + 57 \) is odd.

4. Hypothesis 1: If I am not a turnip then I am crazy.
   Hypothesis 2: If I am a turnip then I am not a radish.
   Hypothesis 3: I am a radish.
   Conclusion: I am crazy.