Negate each statement below, answering formally or informally to match the original statement. AVOID words like "none" and "no;" rephrase to use all/every instead.

1. All real numbers have squares larger than 3.

2. At least one perfect cube number is prime.

3. $2^n < 0$ for some integer n.

4. For every pair of real numbers x and y, $x^2 + y^2 = 1$. (The "and" is grammatical, to make a pair. It's NOT a logic "and.")

5. $\forall x \in \mathbf{Z}^+$, if x is prime or $x < 2$, then x isn't even.

6. $\exists x, y \in \mathbf{R}$ such that $x > y$ but $x^2 < y^2$.