1) Let $U$ be the universe of all quadrilaterals, $P(x)$ be the open statement “$x$ is a square” and $Q(x)$ be the open statement “$x$ is a rectangle”. Rephrase the statement below into a sentence that makes the logic more clear. Then Write the mathematical symbolism that represents it.

“All squares are rectangles”

2) Find the negation of the statement below.

$$\exists x_{\in U}(Q(x) \land \sim P(x))$$
3) Let \( x \) be an integer. Prove that if \( x \) is a multiple of 4, then \( x + 1 \) is even.