For questions 1-3, write each statement in mathematical notation.

1) Every dog has a collar which is blue.

2) There is a number for which the product with every real number is zero.

3) If you go swimming in January, then all the polar bears will laugh.

For questions 4-6, write each statement in English.

4) $\forall_{x\in\mathbb{R}}\forall_{y\in\mathbb{Q}}\forall_{z\in\mathbb{Z}}(xyz + 2 \in \mathbb{C})$

5) $a \in \mathbb{R} \wedge b \in \mathbb{R} \Rightarrow (a + bi)(a - bi) \in \mathbb{R}$

6) $\forall_{\varepsilon>0}\exists_{N\in\mathbb{N}}(n \geq N \Rightarrow |a_n - L| < \varepsilon)$