## IF.05.22 — Theoretical Informatics — Proof Exercises

## 1. Indirect Proof and Proof by Contradiction Given the following statement

$$x = 2 \Rightarrow 3x - 5 \neq 10$$

Proof this statement

- (a) indirectly
- (b) by contradiction

## 2. Indirect Proof and Proof by Contradiction Given the statement

 $n^2$  is odd  $\Rightarrow n$  must be odd. Proof this statement

- (a) indirectly
- (b) by contradiction