

# Logic and Computation I, Autumn 2024

**Exercise 03-02**

**Due Date:**

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Let  $T$  be a theory in  $\mathcal{L}$  and  $T^S$  be the collection of SNF  $\sigma^S$  for a sentence  $\sigma$  of  $T$ . Prove that for a formula  $\varphi$  in  $\mathcal{L}$  (i.e., not containing a skolem function),

$$T \models \varphi \Rightarrow T^S \models \varphi.$$

Solution: