

## 80-311 Assignment 06

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### 1.1

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$$\text{THM}(\varphi) \iff (\exists \Delta (\text{PRF}(\Delta, \varphi)))$$

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### 1.2

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Self-reference lemma:

If  $\varphi(x)$  is any formula in the language of ZF with exactly the indicated free variable then there is a sentence  $\psi$  such that:

$$ZF \vdash (\psi \iff \varphi(\ulcorner \psi \urcorner))$$

Godel's sentence G:  
(what is it?)

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### 1.3

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### 2

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### 3

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