80-311 Assignment 06
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1.1

$$\texttt{THM}(\varphi) \iff (\exists \triangle (\texttt{PRF}(\triangle, \varphi)))$$

1.2

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 ψ such that:

$$ZF \vdash (\psi \iff \varphi('\psi'))$$

Obtaining Godel's sentence G:
Let $\psi = G$ and $\varphi = \not\texttt{THM}$. Then we substitute into the self reference lemma to obtain:

$$ZF \vdash (G \iff \not\texttt{THM}(G))$$

(what is it?)

1.3

2

3