Begriffsschrift examples

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if p then q:

\[ \text{p} \implies \text{q} \]

and with a content stroke instead of assertion:

\[ f \left( \text{p} \implies \text{q} \right) \]

defines Frege’s correspondence with Russell (a version of basic law V):

\[ \vdash (\epsilon f (\epsilon) = \alpha g (\epsilon)) = \exists f (\alpha = f (\epsilon)) \]

from Russell’s correspondence with Frege:

\[ T = \beta \gamma \phi \]

\[ \beta = \epsilon \phi (\alpha, \epsilon) \]

\[ \gamma = \epsilon \phi (\alpha, \epsilon) \]

the Geach-Kaplan sentence (thanks to Marcus Rossberg):

\[ f \left( \exists C (\alpha) \right) \]

That’s all folks