

Ossie's Incompleteness Theorem

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Abstract

Gödel received much praise for his incompleteness theorem and I feel much of this work could not have been accomplished without his insight. Lemma 1 needs a bit of work to make it more rigorous.

1 Lemma 1

There are a countable number of proofs

Proof

Each proof can be translated into English to a string of finite length. There are only a finite number of strings of length n for each n . $|\mathbb{N}| = \aleph_0$ hence result.

2 Lemma 2

There are an uncountable number of true statements.

Proof

For each positive real number α we have the statement $\alpha > 0$.

3 Theorem

Not all true statements can be proved.

Proof

Clear from lemmas 1 and 2

Q.E.D.

Acknowledgements

None.

References

None.