



Fermat

for Solo Violin

by Stephen Lucas

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PROGRAM NOTES

This piece is based off of Pierre de Fermat's Little Theorem, which effectively states that if p is a prime number, then for any integer a ,

$$a^p \equiv a \pmod{p}$$

The piece uses a mod 13 system to determine pitches and rhythms, which allows for 11 exponential mutations of the beginning motive, until the beginning motive reappears at the end.

The piece is meant to illustrate the subtle beauty of number theory and pure mathematics and compare its misfortunes to those of modern music



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Commissioned by Samantha Neal

Stephen Lucas

$\text{♩} = 80-96$

mp ff *fff p* *fff p* *mp f*

mf *f* *pp*

p *ff* *fff* *p* *ff* *mp*

f mp f mp f *fff* *mp ff*

sul G *sul D*