

# 1 Algebra

There is only one group. Hey look! It's your friend group!

You ●

The one ring.



Did you miss it?  
Sauron sure did.

There is only one

A zine for those who want to  
become one with one.

“One One” was a racehorse,  
“One Two” was one too.  
“One One” won one race.  
12112

# 1 Motivation

In their 1985 single, “One Vision”, the British rock band *Queen* outlined the following research program:

So give me your hands, give  
me your hearts

I’m ready!

There’s only one direction  
One world and one nation  
Yeah, one vision

– Queen, “One Vision”

1

# 1 Foundations

**Definition 1.1.** For anyone,

$$1 + 1 = 1$$

$$1 - 1 = 1$$

$$1 \div 1 = 1$$

$$1 \times 1 = 1$$

There is only one function,  
and it is 1-to-1.

$$f(1) = 1$$

and one relation:  $1 = 1$

1

# 1 Topology and Geometry

Here is a true statement:

There exist manifolds,  $M^m$  and  $N^n$  with  $n > m$ , but

$$N = M \setminus \{*\}$$

**Q:** What do you call an empty manifold?

**A:** Pointless.

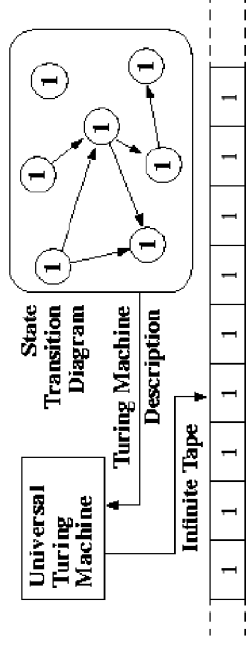
Here is another true statement

There is only one set:  $\{1\}$ .

# 1 Complexity

One makes computers more efficient if one removes the useless 0's between the 1's.

Here's a turing machine:



**Corollary 1.1.** *The halting problem is solvable.*

*Proof.* Halt at 1. □

# 1 Calculus

**Theorem 1.1.** *Every sequence converges.*

*Proof.* Consider a sequence:  $1, 1, \dots$ .  $\forall \varepsilon = 1$ , we have:

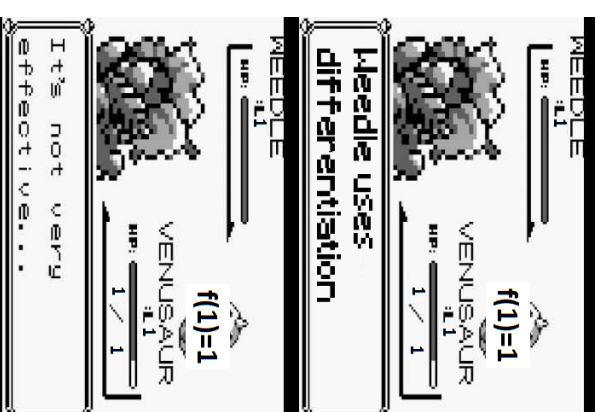
$$|1 - 1| = |1| = 1 = \varepsilon$$

□

**Corollary 1.1.** *Every series converges.*

This is left as an exercise to the reader.

# 1 Derivatives



$$f'(1) = \lim_{h \rightarrow 1} \frac{f(h) - f(1)}{h - 1} = 1$$

# 1 Algebra

There is only one group. Hey look! It's your friend group!

You ●

The one ring.



Did you miss it?  
Sauron sure did.

There is only one

A zine for those who want to  
become one with one.

“One One” was a racehorse,  
“One Two” was one too.  
“One One” won one race.  
12112

# 1 Motivation

In their 1985 single, “One Vision”, the British rock band *Queen* outlined the following research program:

So give me your hands, give  
me your hearts

I’m ready!

There’s only one direction  
One world and one nation  
Yeah, one vision

– Queen, “One Vision”

1

# 1 Foundations

**Definition 1.1.** For anyone,

$$1 + 1 = 1$$

$$1 - 1 = 1$$

$$1 \div 1 = 1$$

$$1 \times 1 = 1$$

There is only one function,  
and it is 1-to-1.

$$f(1) = 1$$

and one relation:  $1 = 1$

1

# 1 Topology and Geometry

Here is a true statement:

There exist manifolds,  $M^m$  and  $N^n$  with  $n > m$ , but

$$N = M \setminus \{*\}$$

**Q:** What do you call an empty manifold?

**A:** Pointless.

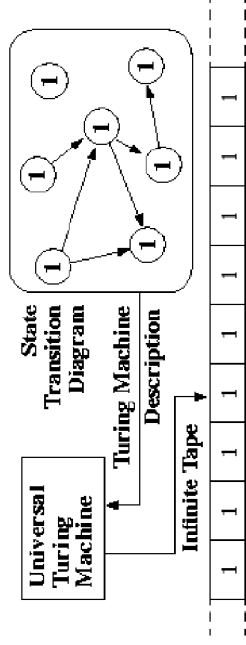
Here is another true statement

There is only one set:  $\{1\}$ .

# 1 Complexity

One makes computers more efficient if one removes the useless 0's between the 1's.

Here's a turing machine:



**Corollary 1.1.** *The halting problem is solvable.*

*Proof.* Halt at 1. □

# 1 Calculus

**Theorem 1.1.** *Every sequence converges.*

*Proof.* Consider a sequence:  $1, 1, \dots$ .  $\forall \varepsilon = 1$ , we have:

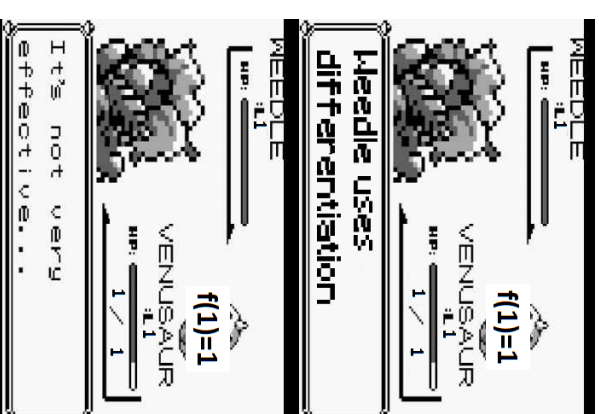
$$|1 - 1| = |1| = 1 = \varepsilon$$

□

**Corollary 1.1.** *Every series converges.*

This is left as an exercise to the reader.

# 1 Derivatives



$$f'(1) = \lim_{h \rightarrow 1} \frac{f(h) - f(1)}{h - 1} = 1$$