

# The warlord's calculus

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In this paper, I describe the warlord's calculus. The paper ends with "The End"

## Introduction

Knowledge has been demanded of me of the warlord's calculus. In this paper, I describe the warlord's calculus.

## Basic concepts and equations

1. The war begins at  $t = 0$  and ends at  $t = T$
2. There exists at least one point in time  $0 < t = d < T$  for diplomacy.
3.  $A_C(t)$  denotes **area under contention** at time  $t$ .
4.  $A_{Co}(t)$  denotes **area under control** at time  $t$ .
5.  $A_O(t)$  denotes **area under occupation** at time  $t$ .
6. We have the **areas equation**

$$A_C(t) = A_{Co}(t) + A_O(t)$$

7.  $S_T(t)$  denotes **soldiers trained** by time  $t$ .
8.  $S_O(t)$  denotes **soldiers occupying their posts** at time  $t$ .
9.  $S_R(t)$  denotes **soldiers in reserve** at time  $t$ .
10. We have the **soldiers equation**

$$S_T(t) = S_O(t) + S_R(t)$$

11. **Gain** at time  $t$  is defined by

$$G(t) = \frac{A_{Co}(t) - A_{Co}(0)}{S_T(0) - S_T(t)}$$

## Transformation of gain using the areas and the soldiers equations

We re-write

$$G(t) = \frac{A_C(t) - A_O(t) - A_C(0) + A_O(0)}{S_T(0) - S_O(t) - S_R(t)}$$

### The warlord's objective

The warlord's objective is

$$G(t) > 0$$

for as many values of  $t$  as possible.

### The time(s) for diplomacy

The time(s) for diplomacy are given by the solution(s)  $t = d$  to

$$G(t) = 0$$

### The End

# A simple solution to the warlord's calculus

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## Abstract

In this paper, I describe a simple solution to the warlord's calculus.

## Introduction

In a previous paper, I've described the warlord's calculus. In this paper, I describe a simple solution to the warlord's calculus.

## A simple solution to the warlord's calculus

A simple solution to the warlord's calculus is given by

$$A_C(t) = c\sigma(t)$$

$$A_O(t) = o(1 - \sigma(t))$$

$$S_T(t) = Te^t$$

$$S_O(t) = se^t$$

$$S_R(t) = S_T(t) - S_O(t)$$

where

$c, o, T, s$  are specific reals

$\sigma(t)$  is the logistic sigmoid function

**The End**

# 14 simple solutions to the warlord's calculus

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## Abstract

In this paper, I describe 14 simple solutions to the warlord's calculus.

## Introduction

In a previous paper, I've described the warlord's calculus. In a previous paper, I've described a simple solution to the warlord's calculus. In this paper, I describe 14 simple solutions to the warlord's calculus.

## 14 simple solutions to the warlord's calculus

1.  $c = 9, o = -102, T = 18, s = 92, t = -\frac{24}{5}$
2.  $c = 48, o = -115, T = 21, s = 70, t = -\frac{1}{5}$
3.  $c = 360, o = -439, T = 68, s = 94, t = -\frac{19}{10}$
4.  $c = 390, o = -472, T = 40, s = 20, t = \frac{9}{5}$
5.  $c = 549, o = -630, T = 22, s = 9, t = -\frac{31}{10}$
6.  $c = 603, o = -615, T = 59, s = 35, t = \frac{22}{5}$
7.  $c = 782, o = -843, T = 32, s = 9, t = \frac{3}{5}$
8.  $c = 930, o = -936, T = 43, s = 3, t = \frac{24}{5}$
9.  $c = 977, o = -981, T = 26, s = 33, t = 3$
10.  $c = 1007, o = -1037, T = 80, s = 39, t = \frac{39}{10}$
11.  $c = 1039, o = -1126, T = 38, s = 23, t = -\frac{33}{10}$
12.  $c = 1062, o = -1073, T = 56, s = 21, t = \frac{16}{5}$
13.  $c = 1218, o = -1274, T = 52, s = 26, t = \frac{29}{10}$
14.  $c = 1247, o = -1329, T = 93, s = 20, t = \frac{29}{10}$

## The End