

# BIO150Y Worksheet

## Expt. 3: Can TFT invade a population of cheats?

### Objective

Conduct simulations of a population which initially consists of a small number of TFT individuals ( $N = 6$ ) and a large number of cheats ( $N = 20$ ) to see if TFT can persist.

### Methods

Run replicates and complete Table 3. Then, based on your results, answer the following questions.

**Table 3.** Number of individuals of each strategy at the end of each replicate experiment.

		Replicate number				
Strategy	Initial number	1	2	3	4	5
TFT	$N = 6$					
ALLD	$N = 20$					

### Questions

Answers to these questions are available within the online exercise.

1. Can a small number of TFT invade a population of cheats (ALLD)?
2. If TFT never actually scores more points than ALLD in an encounter, why does it predominate in a mixed population?