The Bigger The Better II

Group 8-29 *

2022

Contents

1	Introduction		1
	1.1	Rationale	1
	1.2	Research Questions	1
	1.3	Project Scope	2

1 Introduction

This project aims to find an algorithm to determine the side length of the largest square that can be inscribed inside a convex n-gon. It is a continuation from a previous project completed in 2021, The Bigger The Better.

1.1 Rationale

1.2 Research Questions

- 1. What is the side length of the largest square that can be inscribed in a triangle?
- 2. What is the side length of the largest square that can be inscribed in a regular n-gon, given $n \neq 4$?
- 3. What is the side length of the largest square that can be inscribed in a convex n-gon?

^{*}Derrick Lukimin (L, 2i204), Tan Yong Yih (2i222), Wu Hao (2i324), Darren Yap (2i425)

1.3 Project Scope