

# The Bigger The Better II

Group 8-29 \*

2022

## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
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]]

### 1.1 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**

### **References**

Wu, H., & Huo, X. C. (2021). The bigger the better. <http://projectsday.hci.edu.sg/2021/05-Report/cat-08/8-02/index.pdf>