# The Bigger The Better II

Group 8-29 \*

2022

#### **Contents**

1	Introduction	
	1.1	Rationale
	1.2	Research Questions
	1.3	Project Scope

### 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?

<sup>\*</sup>Derrick Lukimin (L, 2i204), Tan Yong Yih (2i222), Wu Hao (2i324), Darren Yap (2i425)

## 1.3 Project Scope

# References

[1] H. Wu and X. C. Huo. "The Bigger The Better". In: (2021). URL: http://projectsday.hci.edu.sg/2021/05-Report/cat-08/8-02/index.pdf.