

# The Bigger The Better II

Group 8-29 \*

2022

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## 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?

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## 1.3 Project Scope

### References

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