USC - Talamban

Computer Science As A Discipline

Presented by John Paul E. Tautuan
BSIT - 1

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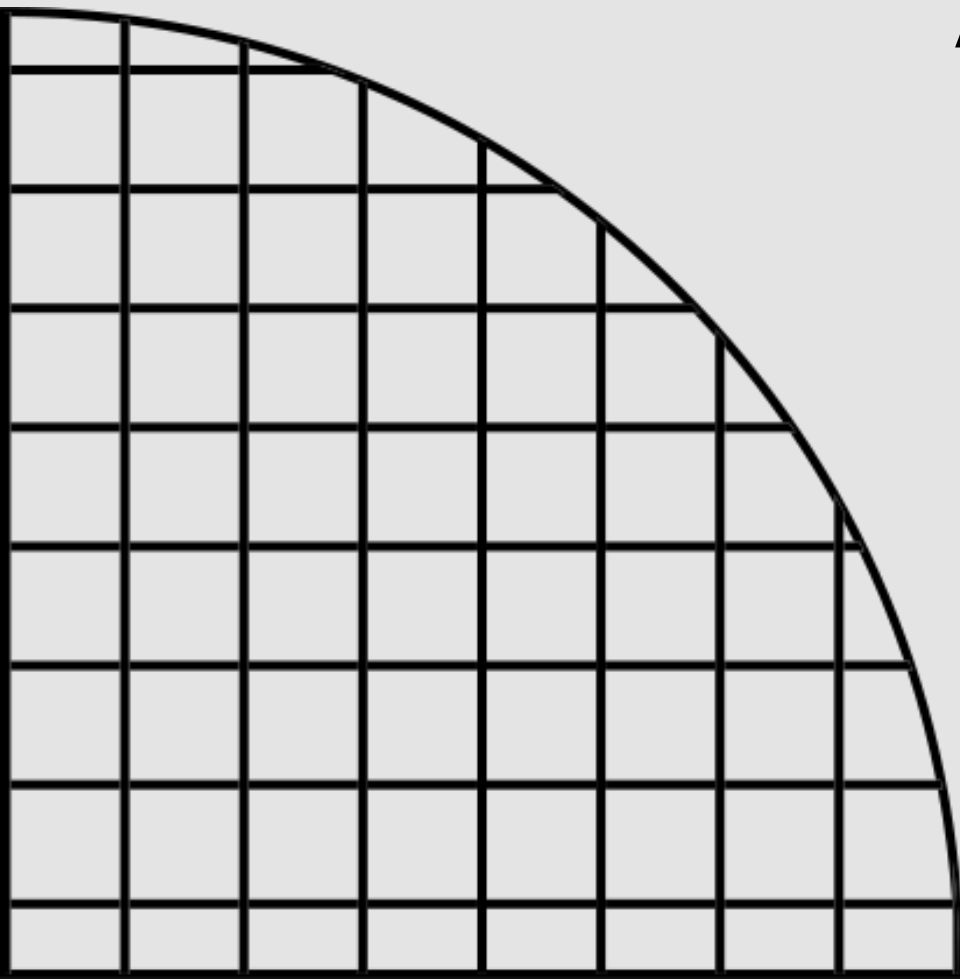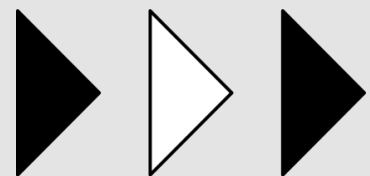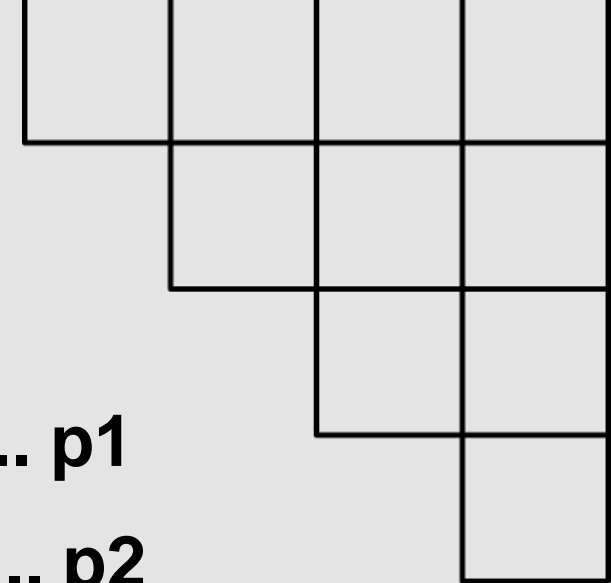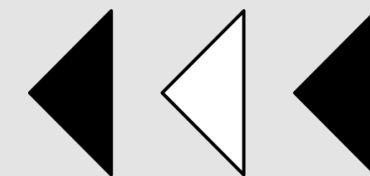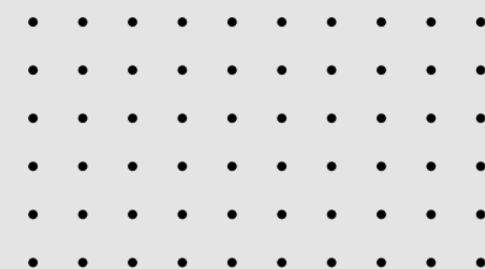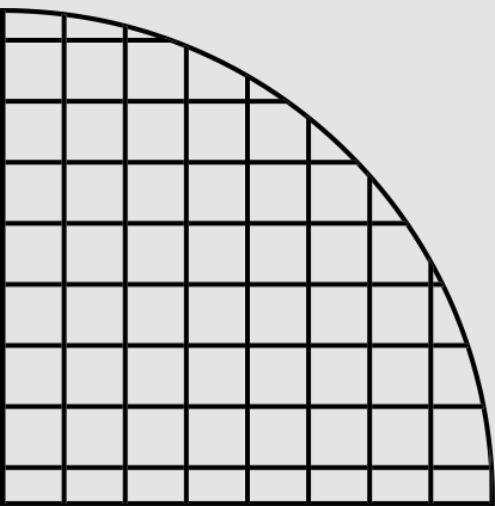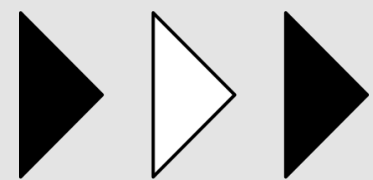# Computing Disciplines
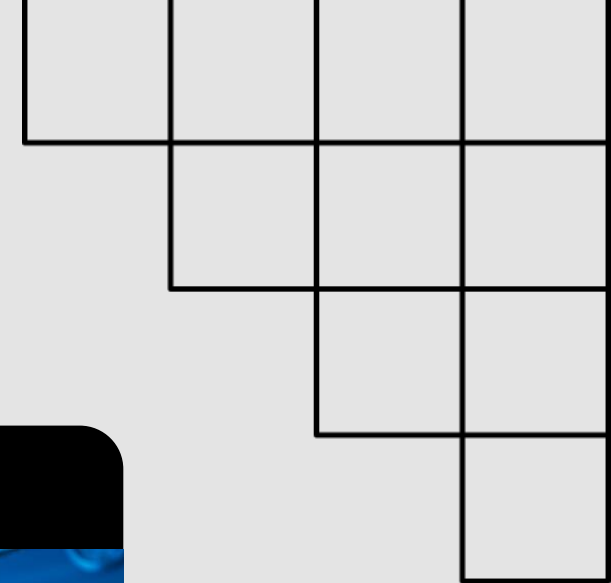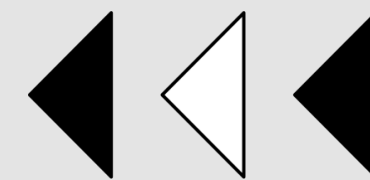
Computer Science

Information Technology

Software Engineering

Computer Engineering

Data Science

Computer Science
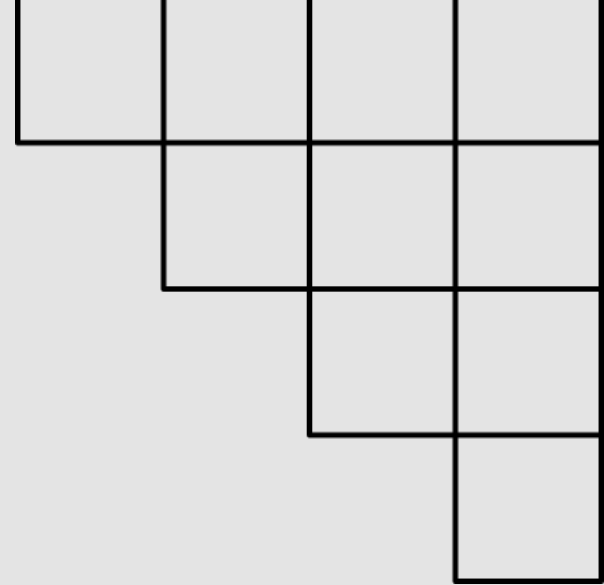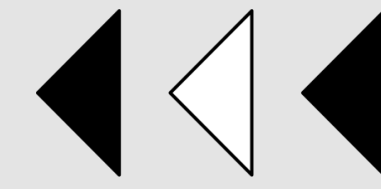
- focuses on the theories involving computing, algorithms and principles of computation

- Key skills: Programming, Algorithm designing, and Data structure production

- Career paths that accept computer science degrees include Software development, Machine Learning, Analytics, Web development and Cybersecurity
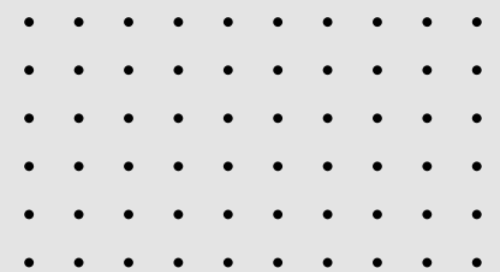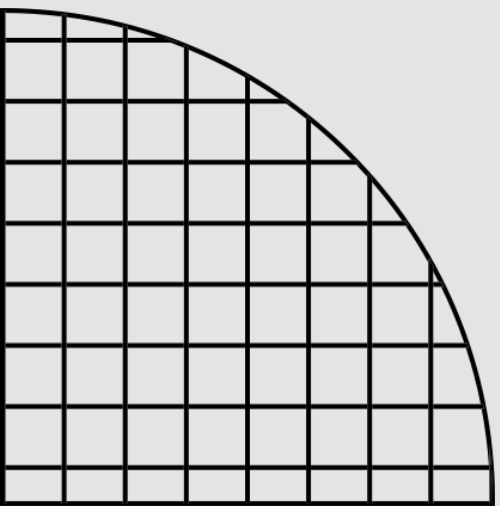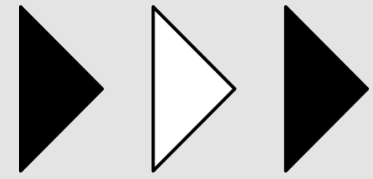
Information Technology
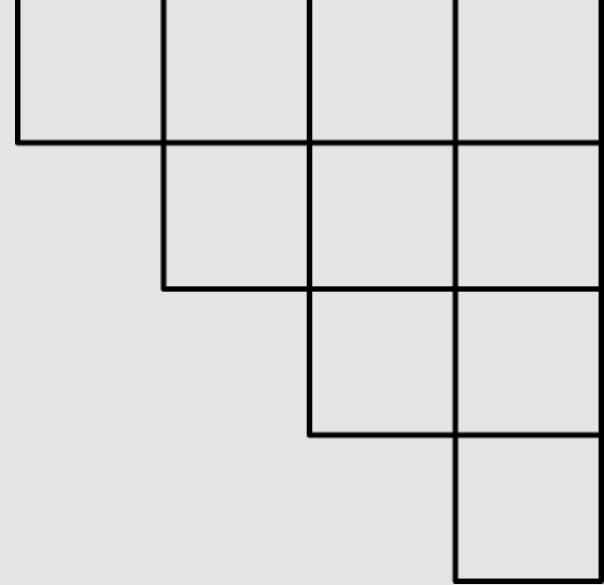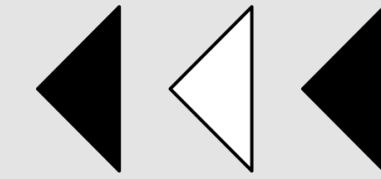
- focuses on activities relating to the implementation, management, upkeep and debugging of computer systems in organizations
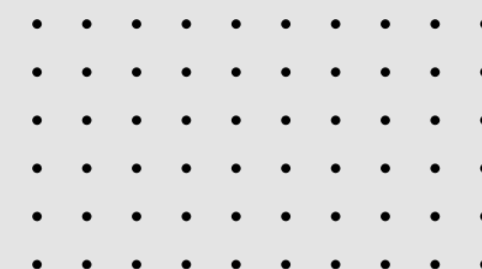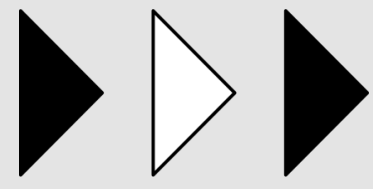
- Key skills: network management, software development, database management

- Career paths that accept information technology degrees include Network management, Software development, Cloud computing and Cybersecurity
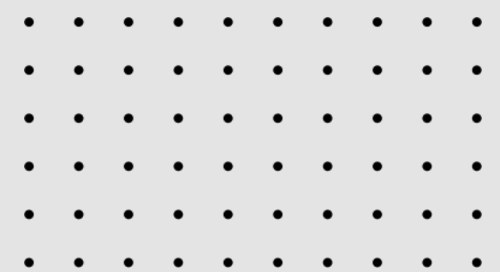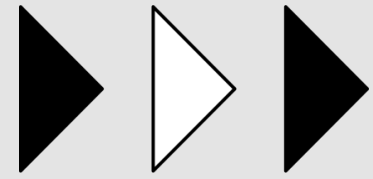
Software Engineering
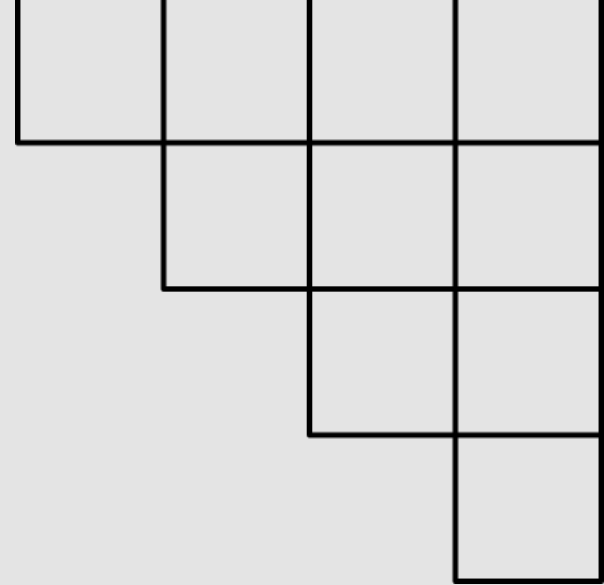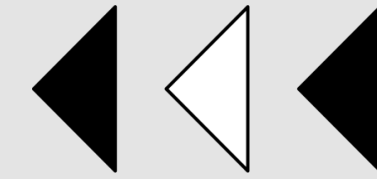
- centers on the designing, development, and upkeep of software systems.

- Key skills: Software designing and development, project management

- Career paths that accept software engineering degrees include Software development, Systems analysis, and quality assurance
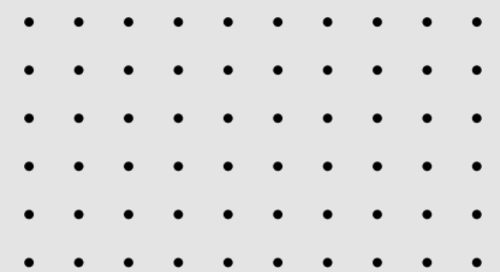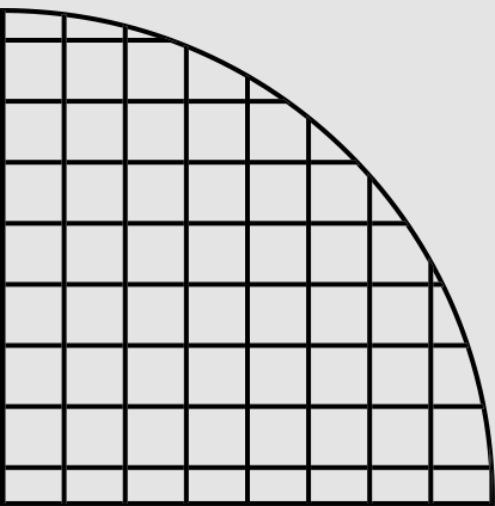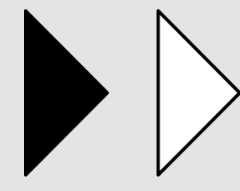
Computer Engineering
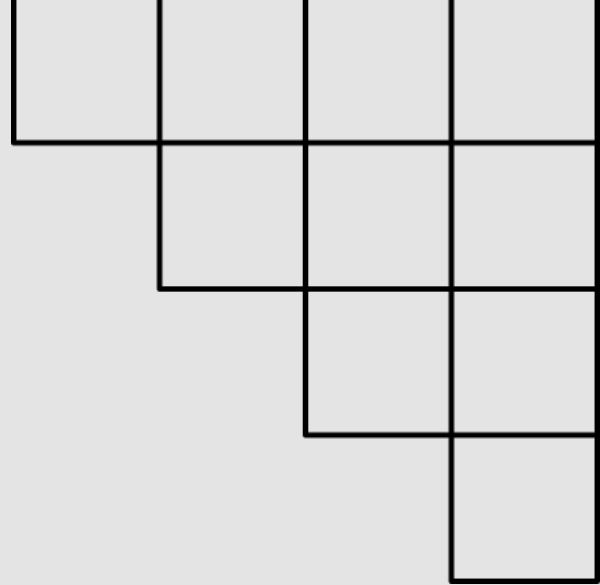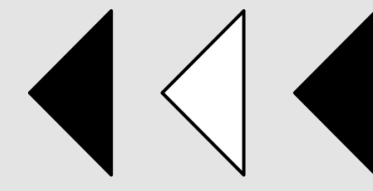
- focuses on designing and building hardware and embedded systems

- Key skills: Embedded systems, Digital systems design and Computer architecture

- Career paths that accept computer engineering degrees include Hardware engineer, Embedded systems engineer, Network engineer
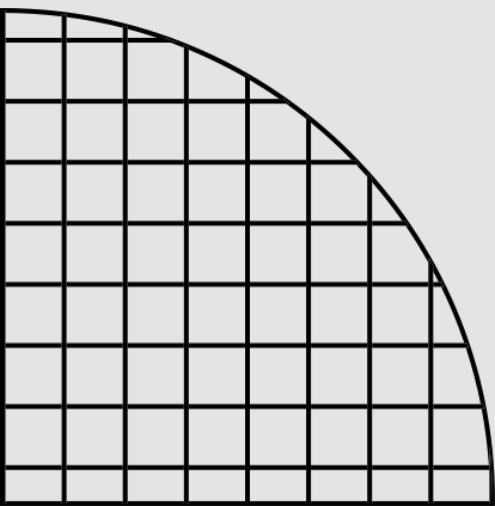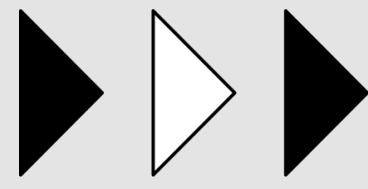
Data Science

- specializes in the gathering and extraction of data from complex datasets using statistics and computation
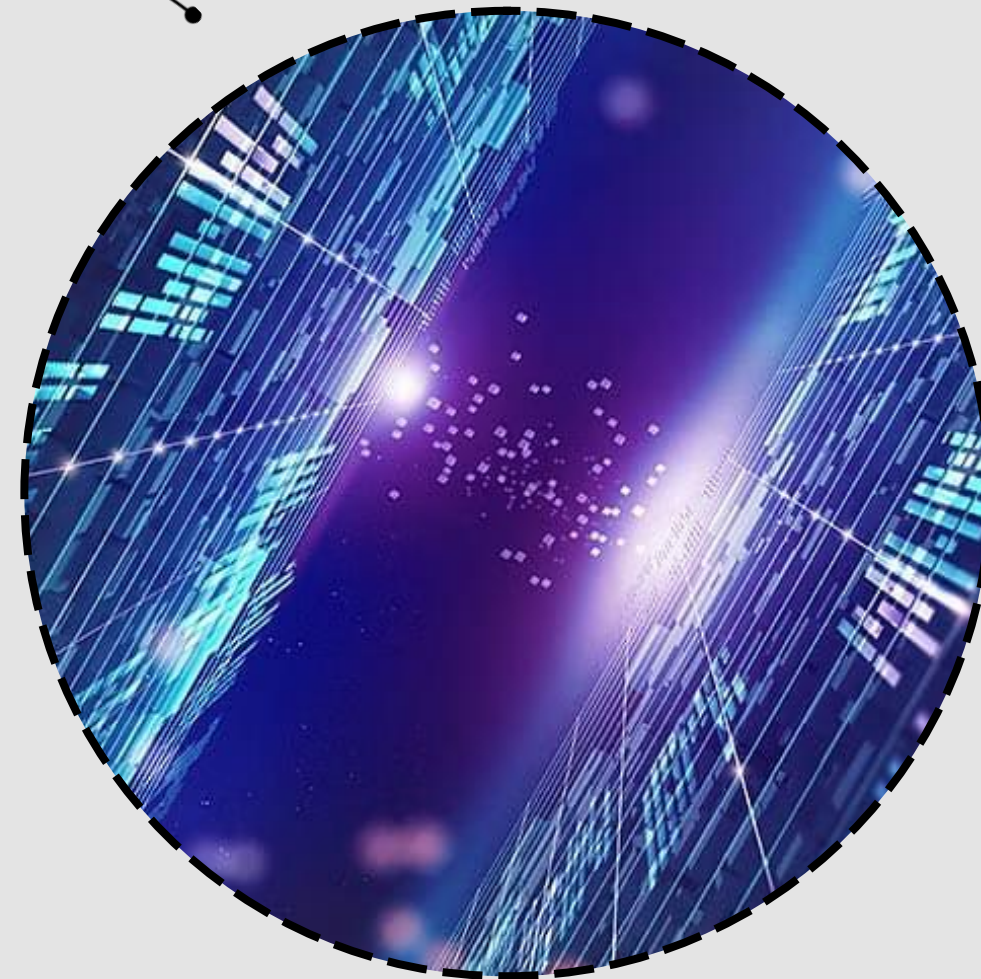
- Key skills: Data analysis, Statistics and probability, Machine learning

- Career paths that accept data science degrees include Data analytics, Machine learning
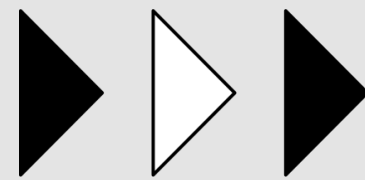
Analysis
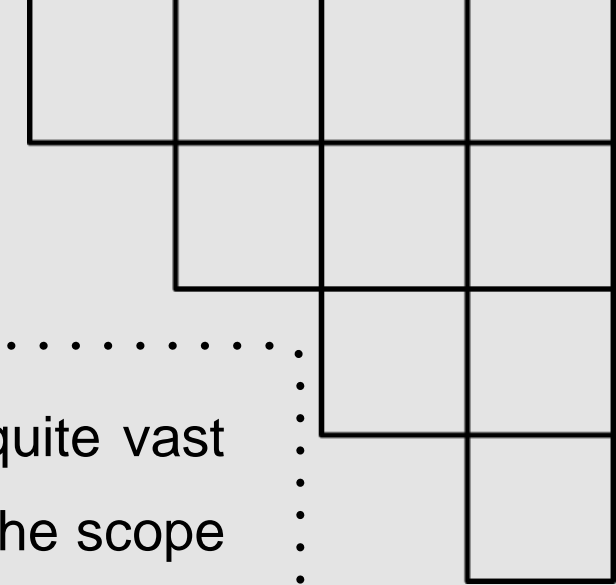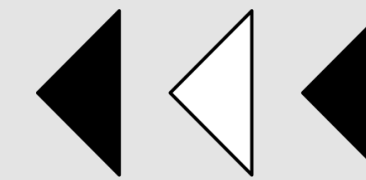
The computing disciplines being different sects of computer degree is a relevant distinction to make. Given the quite vast nature of computing, having dedicated disciplines to accommodate for each facet of the field helps with narrowing the scope of what venture you would like to advance in. In the field of computing, there are 5 major computing disciplines, namely Computer Science(CS), Information Technology(IT), Software Engineering(SE), Computer Engineering(CE), and Data Science (DS). Each major computing discipline pertains to a part of computing they specialize in. Computer Science focuses on the algorithms and principles of computation. It is a vital component of computing. Information Technology focuses on activities relating to the implementation, management, upkeep and debugging of computer systems in organizations. Software Engineering, much like information technology, centers on the designing, development, and upkeep of software systems. Computer Eng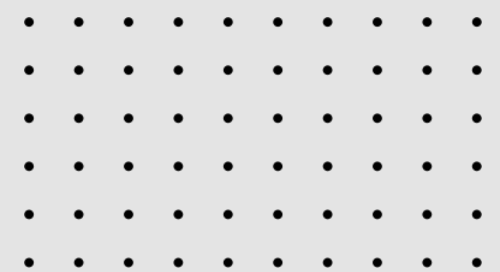ineering foc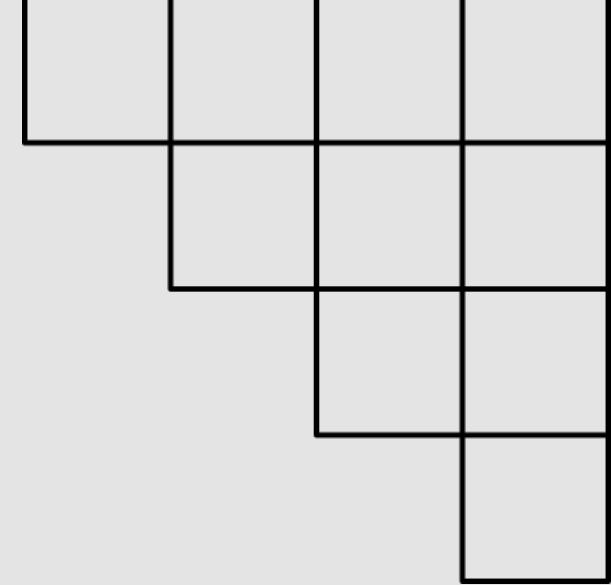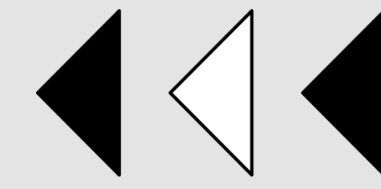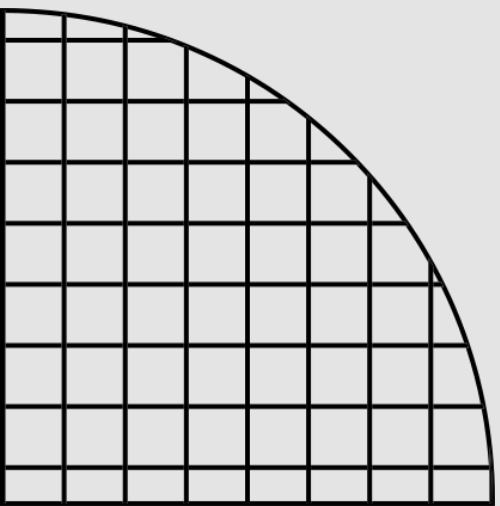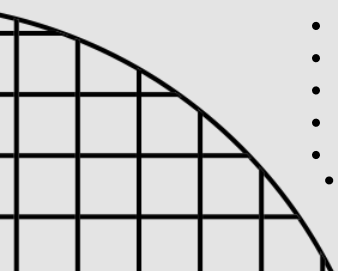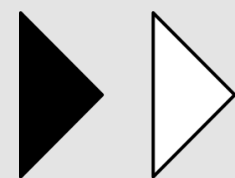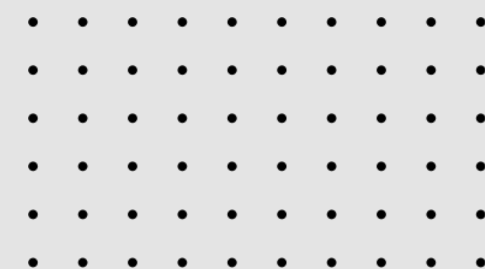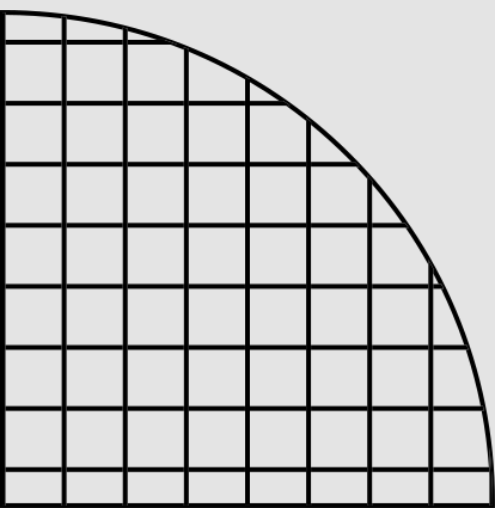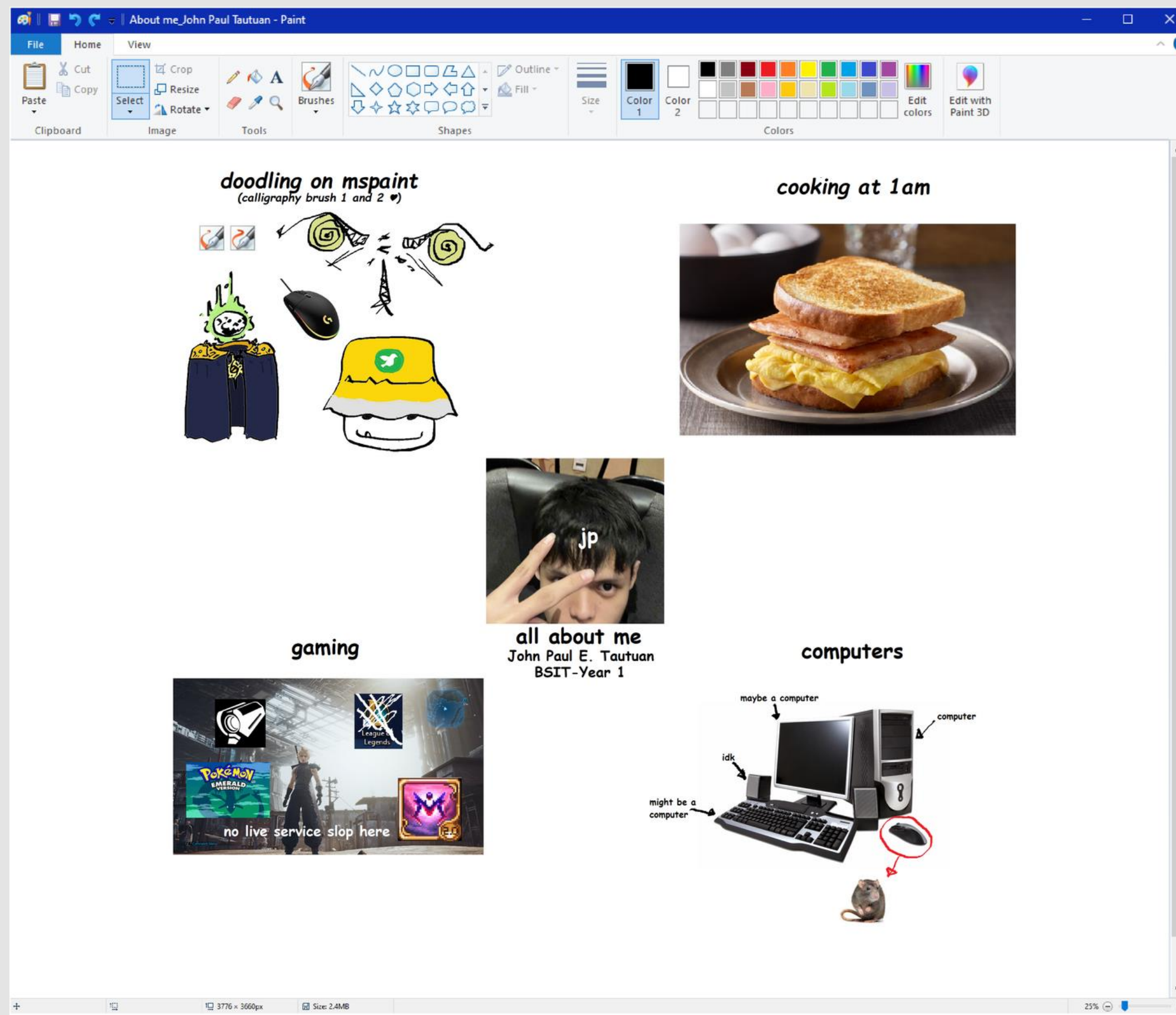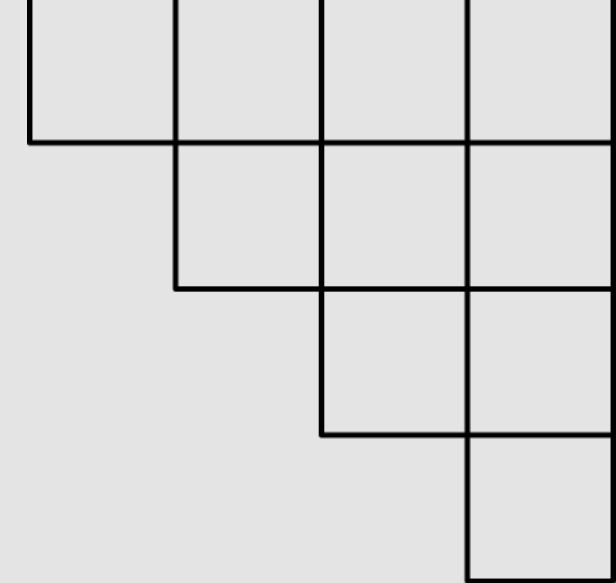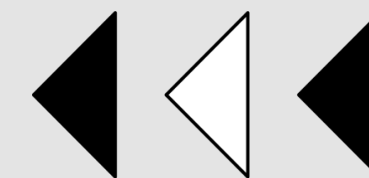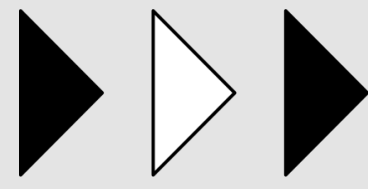uses on designing and building hardware and embedded systems. Data Science specializes in the gathering and extraction of data from complex datasets using statistics and computation. All the disciplines mentioned, in the grand scheme of things, are of varying importance. The groundwork of most of the computing field and where most of the fundamentals in each discipline were derived from is Computer Science. Computer Science functions as the foundation of the field of computing. The fundamentals learned in computer science are applied in the other computing disciplines, as well as outside of the computing space. The ability to program, write algorithms and create data structures are practical skills that have applications outside of computer science. Outside of the workplace, being able to structure and visualize the flow of processes can prove advantageous. With new advancements in technology, comes new opportunities, new careers and new fields to pursue. Given its place as the most vital of the 5 disciplines, I can foresee Computer Science bringing the field of computing to new heights in the near future.
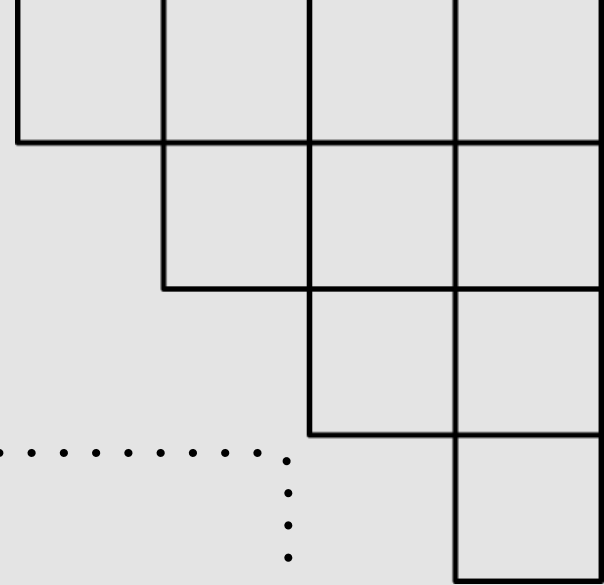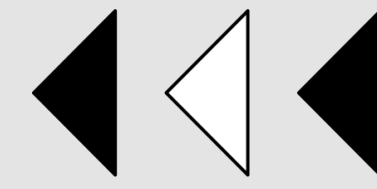
Getting To Know Me

doodling on mspaint
(calligraphy brush 1 and 2 ♥)

cooking at 1am

gaming

no live service slop here

all about me
John Paul E. Tautuan
BSIT-Year 1

computers

maybe a computer

computer

idk

might be a computer

References

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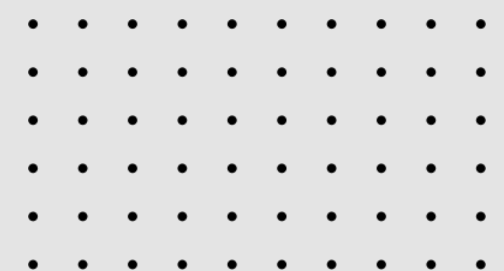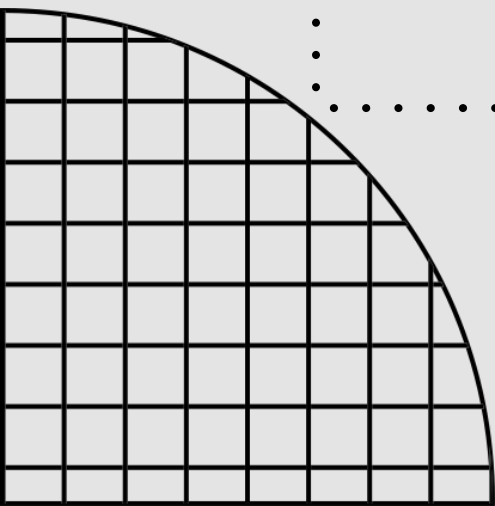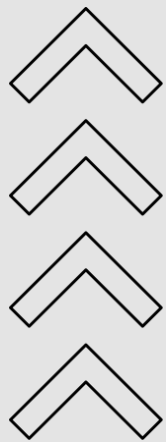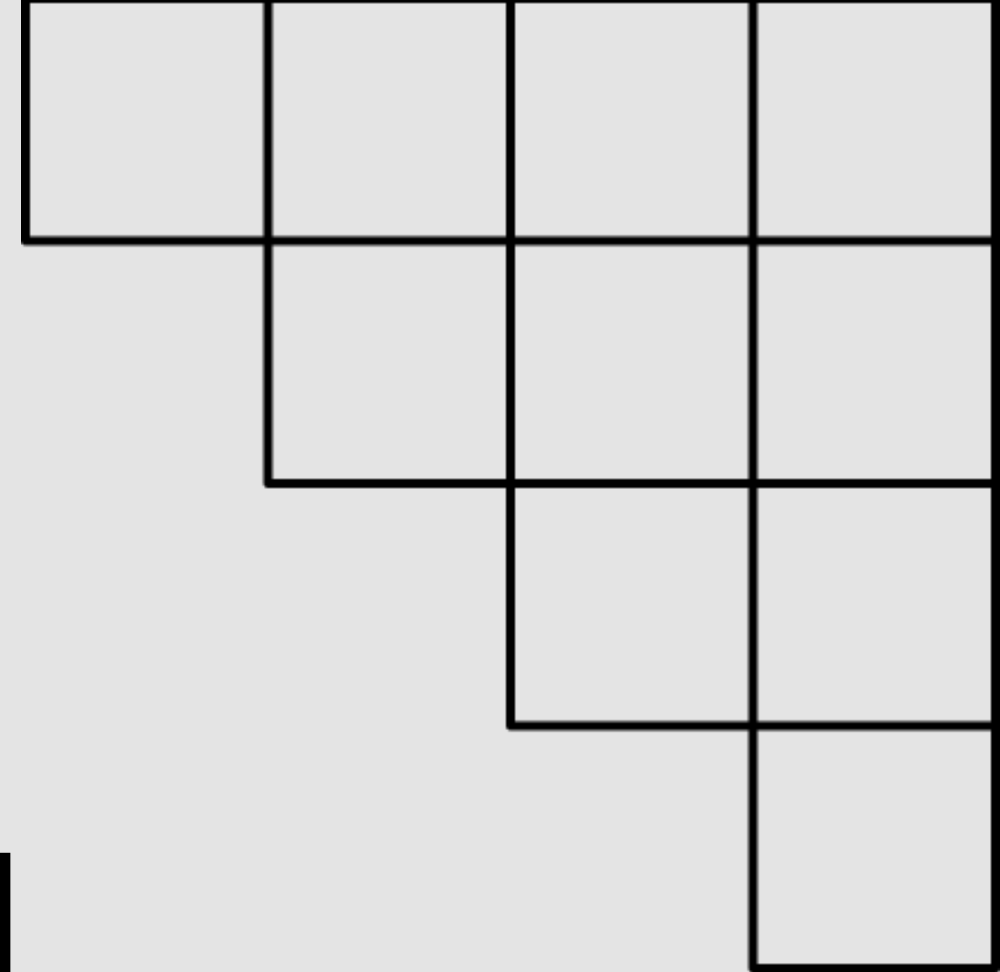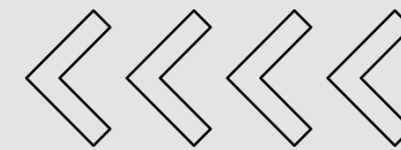
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Thank You

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