Designing with Functions

CSCI 10 - Santa Clara University - Fall 2016
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Announcements

- Homework 1 is available for pick up

- Homework 2 solutions will be posted today

What you want to learn!

- Real world applications

- Hardware

- Art / music / games

- Job opportunities and what are the jobs?

- How stuff works

- Society and laws

- Cross disciplinary applications

- Theory of computing

- AI and future tech

- Analytic skills

- Crypto and Security

- Simulations (Finance)

- How to learn languages

- How to build a computer

- Events (Hackathons)

Midterm

- How many problems? 5

- How long? 60 minutes

- What should I bring? pencil and eraser

- The midterm will focus on skills not trivia

What is covered?

(build a mind map)

Example Problem 1

- Convert the binary number 10011001 to decimal

- Convert the decimal number 300 to binary

Example Problem 2

- What does the following program print?
  (similar to what was on homework 2/3)

Example Problem 3

Write a complete C++ program that gets a number from the user and prints the area of a square with that side length. Your program must print an error message if the side length is negative.

Example Problem 4

Write a complete C++ program thats gets three numbers from the user and prints the largest.

Example Problem 5

Write a complete C++ program that takes a number n from the user and prints the product of the first n whole numbers. Use a for-loop to calculate the product.

$$1 \times 2 \times 3 \times 4 \times \cdots \times (n - 1) \times n$$