Computational Basics

Introduction to Computing
Class Structure
6% Lecture participation
Grading

6% Lecture participation
6% Quizzes
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Component</th>
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<tr>
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<tr>
<td>6%</td>
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</tr>
<tr>
<td>22%</td>
<td>Laboratory exercises</td>
</tr>
</tbody>
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Grading

6%  Lecture participation
6%  Quizzes
22% Laboratory exercises
26% Homework
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Required Supplies

- **i>clicker**
  
  Grades count starting Wed 02-01
Required Supplies

- i>clicker
  Grades count starting Wed 02-01
- Textbook: HPL
How did we get here?
$1 + \frac{24}{60} + \frac{51}{3600} + \frac{10}{216000} \approx 1.414213$
O inscribe a circle in a given square.

Make \[ BC \cdot AD \]
and \[ BC \cdot AD \]
draw \[ BC \cdot AD \]
and \[ BC \cdot AD \]
(B. 1. pr. 31.)

\[ \therefore \hspace{1cm} \text{is a parallelogram;} \]

and since \[ BC \cdot AD \]
(hyp.)

\[ \therefore \hspace{1cm} \text{is equilateral (B. 1. pr. 34.)} \]

In like manner, it can be shown that \[ BC \cdot AD \]
are equilateral parallelograms;

\[ \therefore \hspace{1cm} \text{are equilateral parallelograms;} \]

and therefore if a circle be described from the concourse of these lines with any one of them as radius, it will be inscribed in the given square. (B. 3. pr. 16.)

Q. E. D.
لا يمكنني قراءة النص العربي من الصورة. إذا كنت بحاجة إلى مساعدة في شيء آخر，请让我知道！
Babbage
Elements of Computation

- Calculation
Elements of Computation

- **Calculation**—mathematics, physics, [universal] language, etc.
Elements of Computation

- **Calculation**—mathematics, physics, [universal] language, etc.
- **Storage**
Calculation—mathematics, physics, [universal] language, etc.
Storage—punch cards, tape, drives, RAM
Elements of Computation

- **Calculation**—mathematics, physics, [universal] language, etc.
- **Storage**—punch cards, tape, drives, RAM
- **Control**
Elements of Computation

- **Calculation**—mathematics, physics, [universal] language, etc.
- **Storage**—punch cards, tape, drives, RAM
- **Control**—punch cards, gears, vacuum tubes, transistors
Elements of Computation

- **Calculation**—mathematics, physics, [universal] language, etc.
- **Storage**—punch cards, tape, drives, RAM
- **Control**—punch cards, gears, vacuum tubes, transistors
- **Communication**
Elements of Computation

- **Calculation**—mathematics, physics, [universal] language, etc.
- **Storage**—punch cards, tape, drives, RAM
- **Control**—punch cards, gears, vacuum tubes, transistors
- **Communication**—telephone lines, network
Computational thinking
How do you get help?

- Course website and FAQ
How do you get help?

- Course website and FAQ
- Forum (Piazza)
How do you get help?

- Course website and FAQ
- Forum (Piazza)
- Textbook
How do you get help?

- Course website and FAQ
- Forum (Piazza)
- Textbook
- Teaching assistants (labs, office hours)
How do you get help?

- Course website and FAQ
- Forum (Piazza)
- Textbook
- Teaching assistants (labs, office hours)
- Course administration
Next steps
Next steps

- Acquire course materials
Next steps

- Acquire course materials
- Complete hw00
Next steps

- Acquire course materials
- Complete hw00
- Sign up for the forum
Next steps

- Acquire course materials
- Complete hw00
- Sign up for the forum
- Introduce yourself to your TA
Next steps

- Acquire course materials
- Complete hw00
- Sign up for the forum
- Introduce yourself to your TA
- Read for the next class