



# Distributed Systems

## Time and Global States

# Learning Goals

- To understand:
  - The challenge of time in a distributed system
  - How to synchronize distributed clocks
  - How you can assess the state of a distributed system

# Example

- Browse to <http://tinyurl.com/702clock>
  - This is your local clock
- Take out a piece of paper
- Solve by hand:  $643 * 192$ 
  - Timestamp each line after you complete it

- E.g.

Arithmetic	Timestamp
643	92
<u>192</u>	96
1286	112
...	