Announcements
- Read Chap 7, Sec 2 for next time
- Assignment 5 due tonight!
- Assignment 6 due Nov. 8!

What we will do today
- Classwork – GateKeeper Problem
  - There are four players standing facing you
  - One of the players is the Gate Keeper - random
  - When the GateKeeper is on the far right, the game is over
  - To move players, click on a player, it swaps with the player furthest away
  - DEMO

Implementation
- Objects: Cow, Penguin, Chicken, Monkey
- tennisBall, tennisBall2, tennisBall3, tennisBall4
- The Balls mark the spot where a player should stand, the balls should not move
<table>
<thead>
<tr>
<th>Setup</th>
<th>Run the game</th>
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</table>
| • Randomly set one of the players to be the GateKeeper  
  • Make sure the game is not over yet.  
  • Setup an event to show the answer – when you type S, you see who the gatekeeper is | • When you click on an object,  
  – Make sure it is a player  
  – Swap it with the player furthest away  
  • Check to see if the game is over |

<table>
<thead>
<tr>
<th>Write swap in three parts</th>
<th></th>
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</table>
| • WhichBallNearPlayer – given a player, determine which ball it is standing near  
  • WhichPlayerNearBall – given a ball, determine which player is standing by it  
  • Swap – given a player  
  – Determine ball it is near  
  – Determine ball it should move to  
  – Determine the player that is near the ball it should move to |