Warm-Up

When you come into lab today you will be given a number between 0 and 9.

Pair up with a person who has a number closest to your own. For example, if you have the number 4, you will want to pair up either with the person who has the number 3 or the person who has the number 5. For this purpose, the number 0 is considered to be next to the number 9.

If possible, pair up with someone you do not already know.

Interview your partner, asking them these four questions:

- What is your name?
- Why are you taking this course?

… and less obviously,

- Who is someone you greatly admire, and why?
- What is something true about you that people who don't know you would likely find surprising?

When these interviews have finished, I will ask partners to introduce each other to everyone else in the room, basing your introductions on what you have learned about them.

Two Games

Now sit with your partner at one of the two tables set up for games. There should be from 3 to 5 people at each table.

Whoonu?[1]

The people at one table will play the game *Whoonu?*. Part of this will involve figuring out how to play the game, and that in turn will involving organizing yourselves to learn that. Follow the game instructions for the number of people at the table.

Play a full round of the game, with each person having their chance to be the "Whoozit."

Reflection: What do you think this game has to do with this course?

SET[2]

The people at the second table will play a game called *SET*. I will be instructing you in this game and will also be the dealer. We will play this game as long as it takes the *Whoonu?* Group to finish their round.

Reflection: What do you think *this* game has to do with this course?

When both games have concluded, the games will be switched so that each table can play the other game.

[1] See https://en.wikipedia.org/wiki/Cranium_Whoonu .
[2] See https://www.setgame.com/set .

Making Do

By "making do," I am referring to the common experience of planning to do one thing, finding that you are unable to carry out that plan for some reason, and then thinking of something else that you can do which substantially achieves your original goals. It's not just solving a problem but solving it by *substituting* something that you do have for something that you don't or can't have.

This exercise, which I learned from the *Algebra Project*[3], gets at some of the main ideas underlying modeling by drawing on this common experience.

Example

Over the summer I had to open some packages that had been delivered – but I didn't have a box cutter or scissors handy. At first, I thought of using a key, but the only key I had in my pocket was a sensor key for a rental car – no teeth! I did, however, have a quarter in my pocket, and I found that the serrations on the edge of the quarter were sufficient to enable me to cut through the packaging tape and open the packages. So – I was able to "make do" with the quarter.

YOUR STORY

Think of an occasion in your own life where you made do.

Record your story through a combination of drawing and writing in the box below and the space beneath it.

[3] See http://www.algebra.org to learn more about this organization.

YOUR ANALYSIS

To analyze your story, answer the following questions about it:

1. What was the original goal you wished to achieve?

2. "Making do" involved *substituting* a feasible plan for one that was not feasible. In your story, how were the two plans similar and how were they different?

3. Among the features the plans shared, which features were important to achieving your goal?

Now discuss your story and your analysis with the group at your table. Note: In *Assignment 1*, you will be asked to post your story and analysis to Moodle as a way to introduce yourself to the rest of the class.

There are two final items of business for today's lab.

Gateways

The Gateway Program is run by the Mathematics Department to help students who have already learned certain mathematics recall it prior to the point where it may be needed in a course they are taking.

Later in this course we will be doing some statistics, so I have the students in this course do the "Pre-Stats" Gateway.

I'll be handing out some information about this program and explaining how it works.

Student Information

Before you leave today, I would like you to fill out and return an information sheet about your background and interests. This will help me customize the course to this class of students and will help me get to know you better.