

Lab #3

September 12, 2012
MATH 166.200

Name: _____

The is due at the start of lab on **September 19, 2012**. Don't forget to e-mail me your spreadsheet.

Changing the number of decimal digits: To change the number of decimal digits shown, click on the cell (you want to change) and then click on **Format** and then **Cells**. Select the tab **Numbers**. Find the option "Decimal places" and change it to the desired amount. (usually more than 2 places.)

Problem 1: Type your name in the first page of the spreadsheet.

Problem 2: An experiment is to draw a ball from one of two jars, $P(J1) = 0.25$. Each jar has red and green balls as listed in the table. Create a spreadsheet that will compute the indicated probabilities. Give your probabilities to **at least 4 decimal digits**. I will grade this problem by changing the number of balls in each Jar and checking your results. Be sure that it is easy for me do make these changes. i.e. I only will type in a few numbers and will not edit any of your formulas.

	Jar 1	Jar 2					
red	6	3	$P(J1 \cap \text{red}),$	$P(J1 \cap \text{green}),$	$P(\text{red}),$	$P(J1 r),$	$P(J1 g)$
green	4	5	$P(J2 \cap \text{red}),$	$P(J2 \cap \text{green}),$	$P(\text{green}),$	$P(J2 r),$	$P(J2 g)$

Problem 2: The two jars now have more balls. $P(J1) = 0.35$ Compute these probabilities and record the answers on this page. Hint: There is a very easy way to solve this problem.

	Jar 1	Jar 2
red	6	3
green	4	5
blue	7	2
yellow	2	25

$P(J1 \cap \text{red}) =$ _____
 $P(J2 \cap \text{red}) =$ _____
 $P(\text{red}) =$ _____
 $P(\text{not red}) =$ _____
 $P(J1 | r) =$ _____
 $P(J2 | \text{not red}) =$ _____

Problem 3: An experiment consists drawing a ball from a jar and then placing the ball into the box. Then you draw a ball from the box. The number and colors of the balls in the jar and box are listed below. Create a spreadsheet that will compute the indicated probabilities. I will grade this problem by changing the number of balls in the jar and box and checking your numbers to my answers. Be sure that it is easy for me do make these changes. i.e. I only will type in 4 numbers and will not change any of your formulas.

	Jar	Box
red	6	3
green	4	5

- P(2nd ball is red)
- P(2nd ball is green)
- P(1st ball is red | 2nd ball is red)
- P(1st ball is red | 2nd ball is green)