

MA 310 Homework #5

Due Wednesday, February 20

1. Solve “Binary Numbers” part 1.
2. Solve “Binary Numbers” part 2. Explain what the magician does and why it works.
3. Solve “Binary Numbers” part 5. The written description looks a bit technical, but just remember the class demonstration.
4. Solve “Weird Multiplication I”. Hint: Think carefully about the previous problem.
5. Solve the “8 Card Trick”. Explain what the magician does and why it works.
6. Extra Credit: Solve the “27 Card Trick” with the added complication that you ask for a integer from 0 to 26 in advance, and force the selected card at the end of the trick to be the next one after this number of cards. Explain what the magician does and why it works.