

Review 2:

This review is meant as a general overview of SOME of the topics covered in class up to date. The test questions will not only cover this material but will also cover sections 4.1-4.3 and 1.1-1.5. You should know all definitions and techniques outlined in the text, and be comfortable with the properties and examples throughout the above sections as well as know how to solve the exercises and homework problems. Below I provide some sample problems that cover material from class. I am in no way promising any of these problems will be on the test. They are solely for practice. Other good sample problems can be found in your homework assignments, lecture notes, and class handouts, as well as the before mentioned places.

1. Write down divisibility tests from all numbers 2-11. Then determine which for these numbers divide 227, 840, 134
2. Determine if 281 is a prime number.
3. Determine the gcd and lcm of 154 and 553 using first set intersection, then prime power representation, and lastly the Euclidean algorithm. (I would advise making factor trees for both of these numbers first.)
4. Jason fell into a well that is 15 feet deep while making a wish. Each day he climbs up 3 feet and each night he slips back 2 feet. How many days will it take Jason to get out of the well?
5. How many terms are in the sequence:

$$1, 6, 11, 16, \dots 296?$$

Then determine the sum of all of the numbers in the sequence.

6. After the second exam a group of MA201 students: Zeus, Apollo, and Nike decided to go out for pizza. They each ordered a two slices of pizza. The six slices ordered were one cheese, one pepperoni, one olive, one spinach, one mushroom, and one chicken. Given the information below, who ate which slices?
 - Nike is a vegetarian.
 - Zeus favorite cartoon is Popeye and ordered a slice of spinach pizza to honor him.
 - Apollo hates vegetables.
 - Zues has a weak stomach and can not eat olives or pepperoni.
 - Someone ordered a slice of mushroom pizza and a slice of pizza with meat.
7. Farmer Bob has 100 animals on his farm of chickens and hogs. Altogether there are 286 animal feet (Bob's feet are not included). How many chickens and how many hogs are on Farm Bob?