Math 365
Section 4.3

Problem 1
Fill in the blanks with factor or multiple.

a) 8 is a ______ of 72.
   b) 28 is a ______ of 4.
   c) 3 is a ______ of 18 and 18 is a ______ of 3.

Problem 2
Which of the following are divisible by 2? By 3? By 4? By 5? By 6?

a) 699
   b) 1320
   c) 2645
   d) 5736

Problem 3
Find all digits that will make 2__7842 divisible by 3.

Problem 4
Find the largest digit that will make 467__23 divisible by 11.

Problem 5
Test 113,505 for divisibility by 2, 3, 4, 5, 6, 8, 9, 10, 11.

Problem 6
Test 39,916,800 for divisibility by 2, 3, 4, 5, 6, 8, 9, 10, 11.

Problem 7
Test 56,743 for divisibility by 2, 3, 4, 5, 6, 8, 9, 10, 11.

Problem 8
A chewing gum factory packages five sticks of gum into a small pack and three small packs into a large pack. A total of 43,860 sticks of gum are produced in a unit of time. Which divisibility rules can help you decide whether a whole number of full large packs of gum, with none left over, will be produced? Will a whole number of small packages be produced?
Problem 9

a) If a number is divisible by 8, is it necessarily divisible by 4?

b) If a number is divisible by 4, is it necessarily divisible by 8?