MA 330.001 (Alberto Corso)	
History of Mat	hematics
Quiz # 1	

**1.** Explain the dyadic multiplication system of the Egyptians. In which way would Egyptians perform the multiplication  $14 \times 15$ ? What about their calculus of fractions?

pts:

**2.** Could Egyptian solve linear equations? Give an example of the types of problems they considered. What is a false position argument?



**3.** What is so special about the method of computation of the Babylonians? What does it mean that they used a place value system?

pts: 5

pts:

/5

4. Describe the geometric procedure that Babylonians used to approximate  $\sqrt{N}$ . Which approximation for  $\sqrt{2}$  did they obtain?

**5.** What does it mean that Babylonian scribes would present "formulas" of geometric objects in terms of coefficient lists? Give some examples. For instance, which approximation for  $\pi$  did the Babylonians (implicitly) use? Which approximation did the Egyptians "use" for  $\pi$ ?

pts: 5

**6.** What does it mean that Babylonian geometry is based on the cut-and-paste geometry of surveyors? Illustrate this by giving the geometric interpretation to the Babylonian solution of

 $x^2 + bx = c.$ 

