

MA 110-91 §1.1 - 1.2	Quiz #1	<i>score</i>	Name: _____ 19 January 2002
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1. Construct a Venn diagram to determine the validity of the following argument and state whether the argument is VALID or INVALID. (6 points)

1. All mathematicians are socially inept.
2. Jim is socially inept.

Therefore, Jim is a mathematician.

2. Consider the sequence of numbers: 100, 99, 102, 96, 108. Find the next two numbers in the sequence and explain your inductive reasoning. (6 points)

3. Use the following symbolic representations for this problem.

- p : I take piano lessons;
 q : I practice piano often;
 r : I play the piano well.

(a) Express the sentence "If I take piano lessons and if I practice piano often, then I will play the piano well" in symbolic form. (4 points)

(b) Express the following symbolic expression in words: $(\sim p \wedge \sim q) \rightarrow \sim r$. (4 points)