

MA 110-91 §1.1 - 1.3	Quiz #1	<i>score</i>	Name: _____ 2 September 2000
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1. Use a properly labeled Venn diagram to determine the validity of the following argument. Explain. (7 points)

1. All mathematicians are smart.
2. Jim is smart.

Therefore Jim is a mathematician.

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2. Using the symbolic representations

p : A USA student is well-organized;

q : A USA student is punctual;

r : A USA student will succeed;

express the sentence “If a USA student is not punctual or if a USA student is not well-organized, then the USA student will not succeed.” (6 points)

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3. Construct truth tables for the two statements $p \rightarrow q$ and $(\sim p) \rightarrow (\sim q)$ and determine if the two statements are logically equivalent. (7 points)