

First Quiz MTH 213 , Fall 2011

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QUESTION 1. Give a direct proof of the following statement: If x, y are rational numbers, then $x + y$ is a rational number.

QUESTION 2. You may use only the fact given in the class: If $q \mid a^2$ for some prime integer q and some integer a , then $q \mid a$ and $q^2 \mid a^2$. Now prove that $\sqrt{35}$ is irrational.

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