Show All Solutions

Rosen, Discrete Mathematics and Its Applications, 7th edition
Extra Examples
Section 2.5—Cardinality of Sets

Extra Examples — *Page references correspond to locations of Extra Examples icons in the textbook.*

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p.160, icon at Example 21
#1. We know that the set of rational numbers is countable. Are the irrational numbers (the real numbers that cannot be written as fractions a/b where a and b are integers and $b \neq 0$) also countable, or are they uncountable?

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p.160, icon at Example 21
#2. Show that the set $\{x \mid 0 < x < 1\}$ is uncountable by showing that there is a one-to-one correspondence between this set and the set of all real numbers.

See Solution
