Homework Assignment 5

Assigned Tuesday October 7; due Friday October 17, 2PM, at SS 1071

Required reading.  All of Spivak Chapter 5.
To be handed in.  From Spivak Chapter 5: 1 (odd parts), 3 (odd parts), 13, 21, 37.
Recommended for extra practice.  From Spivak Chapter 5: 1 (even parts), 3 (even parts), 14, 24, 26.

Just for fun.  Are there irrational numbers $a$ and $b$ so that $a^b$ would be rational?  Can you find irrational numbers $a$ and $b$ so that $a^b$ would be rational?

Notice that these are two questions and not one.  There is some interesting tale on the philosophy of mathematics for which this is a prime example; have your professor tell you about it some day between XX:00AM and XX:10AM.