Math 270 - Basic Discrete Mathematics
Practice Quiz on Section 4.1

Directions: Answer the problems given below.

1. Assume that m and n are particular integers.

a. Is $4m + 7$ odd? Why or why not?

b. Is $8m - 10n$ even? Why or why not?

c. Assuming that $m > 1$, is $m^2 + 4m + 4$ composite? Why or why not?

2. Prove the following statement: There exist real numbers x and y such that

$$\sqrt{x + y} = \sqrt{x} + \sqrt{y}.$$