

Instructions

- Answer each question completely; justify your answers.
 - This assignment is due at
1. Exercise 1.4, parts (a) and (b).
 2. Exercise 1.6.
 3. Exercise 1.11, part (f)
 4. Exercise 1.18.
 5. Prove that there do not exist integers m and n such that $14m + 20n = 101$.
 6. Prove that there do not exist prime numbers a , b , and c such that $a^3 + b^3 = c^3$.
 7. Prove that there do not exist three consecutive natural numbers such that the cube of the largest equals the sum of the cubes of the other two.