

**Problems:**

1. Section 1.5, exercise 16, parts (a) to (c) [5th edition: exercise 12]
2. Section 1.5, exercise 24 [5th edition: nonexistent, see scan on web page]
3. Section 1.5, exercise 34 [5th edition: exercise 70]
4. Prove that for any integer  $n$  if  $3n + 3$  is odd then  $n$  is even.
5. Section 1.6, exercise 28 [5th edition: Section 1.5, exercise 40]
6. Section 1.6, exercise 30 [5th edition: Section 1.5, exercise 42]
7. Prove or disprove that if  $a$  and  $b$  are rational numbers, then  $a^b$  is also rational.