1. Mark all problems with “T” or “F” for full credit.
   □ (1) Let \( a, b \) be positive integers, and \( c, d \) be integers. Suppose that \( ac = 1 + db \). Then \( a \) and \( b \) are relatively prime.
   □ (2) If a prime number \( p \) divides a product \( bc \) of integers, then \( p \) must divide both \( b \) and \( c \).
   □ (3) \( \sqrt{5} \) is a rational number.
   □ (4) Eudoxus was fully aware of the existence of Dedekind cuts.
   □ (5) All rational numbers can be arranged into a sequence.
   □ (6) There exists a regular solid polyhedron with faces which are pentagons.
   □ (7) There exists a solid polyhedron with 6 faces, 11 edges and 8 vertices.

2. (3 points) Explain how to construct an equilateral triangle having only a straight edge and a compass at your disposal.