**Name:** _____

1. (1 pt.)

   ○ **Read all material carefully.**
   ○ *If in doubt whether something is allowed, ask, don't assume.*
   ○ You may refer to your books, papers, and notes during this test.
   ○ E-books may be used.
   ○ Computers are permitted but discouraged.
   ○ **Electronic and network resources must only be used as a passive library.**
   ○ Write, and draw, carefully. Ambiguous or cryptic answers receive zero credit.
   ○ Use class and textbook conventions for notation, algorithmic options, etc.

   **Write your name** in the space provided above.
   **Do not write anything else on this page.**

   WAIT UNTIL INSTRUCTED TO CONTINUE TO REMAINING QUESTIONS.

   (Do not view any other pages.)

| Q | Full | Score |
|-------|------|-------|
| 1 | 1 | |
| 2 | 9 | |
| 3 | 10 | |
| 4 | 10 | |
| total | 30 | |