Convex Optimization of Power Systems - Errata

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- **Ch. 2, page 5.** The equation should read:
  \[ f(\alpha x + (1 - \alpha)y) \leq \alpha f(x) + (1 - \alpha)f(y) \quad \text{for all } \alpha \in [0, 1], \]
  with the inequality as \( \leq \).

- **Ch. 2, page 12 (Example 2.3)** The matrix encoding the standard form second-order cone constraint as a semidefinite constraint should be
  \[
  \begin{bmatrix}
  (c^T x + d)I & Ax + b \\
  (Ax + b)^T & c^T x + d
  \end{bmatrix} \succeq 0.
  \]

- **Ch. 2, page 13.** In the SDP standard form, it is more common for the first constraint to be an equality of the form
  \[ \text{tr } A_i^T X = b_i, \]
  rather than an inequality.

- **Ch. 2, page 38, problem 2.2.** The inequality should read:
  \[ x^2 - (x - 5)y - yz - xz + 3(z - 5)^2 \leq -1 + 2x - 5z. \]

- **Ch. 2, page 38, problem 2.5.** The function should be
  \[ f(x) = c_i^T x \quad \text{if } a_i \leq x_1 < a_{i+1}, \]
  with the latter inequality being strict.

- **Ch. 3, page 49.** The reference to (3.10) in Section 3.2.2 should instead be to “the reactive power equation in Feasible Set 3.2.”

- **Ch. 3, page 83, problem 3.2.** The text should read: “Show that the feasible set of two-commodity network flow is NOT a relaxation of power flow.”