1. Use the working set method to solve the problem

\[
\begin{align*}
\min 2x + 3y & \quad \text{over } (x, y) \text{ satisfying } \\
y & \leq 2 \\
\frac{y}{x} & \geq \frac{x}{y} \\
x & \leq 1.
\end{align*}
\]

Take the constraint \( y = -x \) as your first subproblem, and \((-0.5, 0.5)\) as your initial guess. Make sure clearly document each step of the process.

2. Book Problem #7.4, pg. 101
3. Book Problem #7.5, pg. 102
4. Book Problem #7.6, pg. 104
5. Book Problem #7.7, pg. 105