Use MATLAB capabilities to numerically solve the optimization problems below. Report the answer, the algorithm used and any other pertinent information. Try more than one algorithm whenever possible (this is especially easy using optimtool) and compare.

13. Solve
\[ \min (2x^3 + y^3 + z^3) \]
subject to the constraints
\[ x^2 + y^2 + z^2 = 1 \quad 2z^2 \leq y^2 \quad x, y, z \geq 0 \]

14. Solve
\[ \max (6x + 14y + 10z) \]
subject to the constraints
\[ 2x + y + z \leq 12 \quad 2x + 3y + z \leq 15 \quad x + 7y - z \leq 21 \]
\[ x \geq 1 \quad y, z \geq 0 \]
(Note this is maximization not minimization!)