Problem 1: Note: drawing equivalent circuits as you go aids in both partial credit and analysis of your solution path.

Given:
- $R_1 = 3 \, \Omega$, $R_2 = 3 \, \Omega$, $R_3 = 6 \, \Omega$
- $R_4 = 1 \, \Omega$, $V_S = 9 \, V$

Find:
- The equivalent resistance as seen by the source.
- The current through the source using Ohm’s Law.
- The current through $R_3$ using current division.
- The voltage across $R_3$ using voltage division.

From Fig. 1:

From Fig. 2:

From Fig. 3:

From Fig. 4:

From Redraw:

From Fig 1:

From Fig 2:

From Fig 3:

From Fig 4:

From Redraw:

From Fig 1:

From Fig 2:

From Fig 3:

From Fig 4: