Sequential C Code:

\[ x_1 = x + dx \]
\[ u_1 = u - (3 \times x + u + dx) - (3 \times y + dx) \]
\[ y_1 = y + u + dx \]
\[ c = x_1 < c \]

Sequential Graph (Unscheduled):

[Diagram of a sequential graph with operations and nodes labeled with numbers and symbols]

Mixed Graph (Control/Dataflow Graph):

[Diagram of a control/dataflow graph with nodes and arrows indicating flow and control paths]

Scheduled Sequencing Graph:

- MUL = 2 cycles
- ADD = 1 cycle

Resource constrained minimum latency (LIST-L)

[Diagram of a scheduled sequencing graph with time lines and task scheduling]
Resourc Sharing and Binding

Multiplexers:

LEFT-EDGE coloring:
- MULT: v1, v3
- MULT: v2, v4
- MULT: v5, v6

ALUs:

LEFT-EDGE coloring:
- ALUs: v10, v11, v12, v13, v14

Registers:

LEFT-EDGE coloring:
- REG1: 20, 21, 23, 25
- REG2: 22, 26
- REG3: 24, 27
MULTI: \( v_1 \left( \frac{3}{2}, x \right) \rightarrow z_1 \)
\( v_3 \left( \frac{1}{2}, 2 \frac{1}{2} \right) \rightarrow z_3 \)

MULTI: \( v_2 \left( \frac{1}{2}, 4 \right) \rightarrow z_2 \)
\( v_4 \left( \frac{3}{2}, 2 \right) \rightarrow z_4 \)

MULTII: \( v_6 \left( 3, y \right) \rightarrow z_6 \)
\( v_9 \left( 4, y \right) \rightarrow z_7 \)

MULTII: \( v_10 \left( \frac{3}{2}, 4 \frac{1}{2} \right) \rightarrow z_1 \)
\( v_{11} \left( \frac{3}{2}, 9 \right) \rightarrow z_1 \)
\( v_5 \left( \frac{3}{2}, 2 \right) \rightarrow z_2 \)
\( v_8 \left( \frac{3}{2}, 2 \frac{1}{2} \right) \rightarrow z_2 \)
\( v_9 \left( 4, z \right) \rightarrow z_1 \)
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