The following RTL describes one iteration of a looped computation (as might be computed on a simple processor composed of a datapath & a controller). The computation takes four constant inputs A, B, C, and D, and produces one output per iteration stored in the register Y. All variables in the RTL are registers:

\[
\begin{align*}
R &\leftarrow A, \quad S \leftarrow Y, \quad T \leftarrow Z, \quad U \leftarrow B; \\
X &\leftarrow R \times S, \quad R \leftarrow T - U, \quad T \leftarrow Z, \quad U \leftarrow C; \\
Z &\leftarrow Y, \quad S \leftarrow T - U; \\
U &\leftarrow R \times S, \quad T \leftarrow X; \\
T &\leftarrow T - U, \quad U \leftarrow D; \\
Y &\leftarrow T + U;
\end{align*}
\]

**Draw the abstract computation-graph that describes the above computation.** (Note that a well-formed abstract computation-graph minimizes registers and exposes parallel operations. Therefore, operators that are shared in the circuit should be separate in the graph. Furthermore, the only registers in the graph are those needed for holding feedback values.)