**Problem 0:**

Total area: 521.314  
Cell counts: 207

**Problem 1: Deliverable**

1. RTL, testbench, SDC attached to submission  
2. Xcelium screenshots shown below:  
A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

3. Synthesis values:

Area Report Screenshot (Total Area = 309.747, Cell Count = 104):

A screenshot of a computer

Description automatically generated

Timing Report Screenshot (Timing Slack = 171):

A screenshot of a computer

Description automatically generated