

## 2025 Digital IC Design Homework 1

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Functional Simulation Result							
Stage 1	Pass	Stage 2	Pass	Stage 3	Pass/Fail	Stage 4	Pass/Fail
Stage 1							
<pre># -----                               -----                                Stage1: Comparator2 Pass ! # -----                               -----</pre>							
Stage 2							
<pre># -----                               -----                                Stage2: MedianFinder_3num Pass ! # -----                               -----</pre>							
Stage 3							
<pre># -----                               -----                                Stage3: MedianFinder_5num Pass ! # -----                               -----</pre>							
Stage 4							
<pre># -----                               -----                                Stage4: MedianFinder_7num Pass ! # -----                               -----</pre>							
Description of your design							
<p>Following the logic diagram in the handout to solve MedianFinder_3num and MedianFinder_5num. In MedianFinder_7num, I exclude the maximum and minimum values first and find the median value by MedianFinder_5num.</p>							
<pre>graph LR     I1[1] -- min --&gt; C1[ ]     I2[2] -- max --&gt; C1     I3[3] -- min --&gt; C2[ ]     I4[4] -- max --&gt; C2     I5[5] -- min --&gt; C3[ ]     I6[6] -- max --&gt; C3     I7[7] -- min --&gt; C4[ ]     I8[8] -- max --&gt; C4     C1 --&gt; M1[ ]     C2 --&gt; M1     C3 --&gt; M2[ ]     C4 --&gt; M2     M1 --&gt; M3[ ]     M2 --&gt; M3     M3 --&gt; Out[median]</pre>							