4.28.1   
 extra CPIs.

4.28.2   
 extra CPIs.

4.28.3   
 extra CPIs.

4.28.4   
 times speedup.

4.28.5   
 times speedup.

4.28.6   
   
 accuracy.

4.29.1 Always-taken accuracy. Always-not-taken accuracy.

4.29.2 accuracy.

4.29.3 accuracy.

4.29.4 Use a five bit shifter to record the five states, and since it is a loop, so the when