

Name: _____

CIS 351 Sample ADD3 Problem

06 January 2022

ADD4: Carry Select Adder

- (a) Sketch the top-level of a 16-bit carry-select adder.
- (b) Assume that the carry-select pattern is applied at only the top-level, and that the component 8-bit adders are standard ripple-carry adders. Fill in the blanks: The propagation delay of this carry select adder is _____ (more than, exactly, less than) _____ (give a fraction) that of a 16-bit ripple carry adder.
- (c) Explain your choice of “more than”, “exactly”, or “less than” for the previous problem.