

H.W. #13 CpE 100 Spring 2021

Show your work for credit (!) and put a box around each of your answers if possible!

1. Work Exercise 3.22 on page 165. (5 points)
2. Design a digital circuit that can take a 4-bit binary number where 0000 is 0, 1000 is 8, 1111 is 15, etc. and convert it into a two's complement binary number. Your design will convert 15 (1111) to 7 (0111), 8 (1000) to 0 (0000), and 0 (0000) to -8 (1000). (1 point)
3. Work Exercise 3.24 on pages 165-166. (5 points)