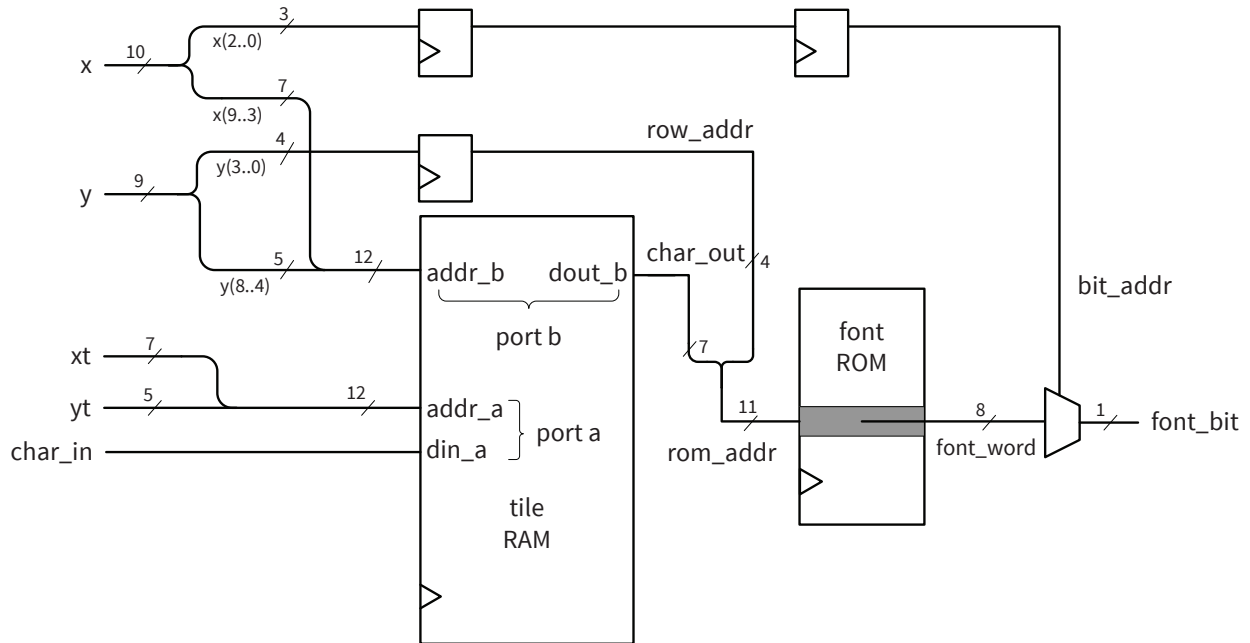


Class Exercise

Based on the given below block diagram of the Text Generation Circuit with Tile Memory, answer the following questions:



1. Provide the following information about the tile RAM:
 - A. Type of memory (single-port or dual-port):
 - B. Total number of words (number of locations in memory):
 - C. Size of each word (a single location in memory):
 - D. Total size of memory in kbits:
 - E. Number of words used to hold ASCII codes of tiles:
 - F. Utilization of memory in % (E/B*100%)
 - G. Address of the location holding ASCII code of the tile with coordinates (0, 1), i.e., the first tile of the second row:

2. Provide the following information about the font ROM:
 - A. Type of memory (single-port or dual-port):
 - B. Total number of words (number of locations in memory):
 - C. Size of each word (a single location in memory):
 - D. Total size of memory in kbits:
 - E. Number of words used to describe a font pattern of a single character:
 - F. Total number of font patterns stored in this memory:
 - G. Range of locations in this memory used to represent a font pattern of a character with an ASCII code 48 decimal = 30 hex (this character is digit 0):