Register File

Consider a register file which contains 32 registers. Each register has a word width of 64 bits.

Part A How many one bit register cells are needed to implement this register file? (show work)

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Part B What type of decoder is required to select the X, Y, and Z registers? (i.e., a X to Y decoder).

_____ to _____

Part C What is the X bus width? (in bits)

_____ bits

Part D How many control wires are needed to select the register to be read onto the X bus?

_____ wires