

(3 points) Consider a single level paging system with a fully associative translation look-aside buffer (TLB). Assume that frames are 1024 Bytes.

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For each of the following virtual addresses, determine whether or not there is a TLB hit, if not determine if a page fault occurs, and if a page fault does not occur, translate the virtual address to a physical address.

1. 4|105

2. 18|640

3. 16|105

(2 points) Consider a TLB which holds  $n$  items. Express your answers in big-O notation.

4. What is the lookup time for the TLB?

5. What is the primary disadvantage of a TLB?

(8 points) Complete the following summary table.

	Advantages	Disadvantages
Single level page table		
Two level page table		
Inverted page table with hashing		
Translation look-aside buffer		