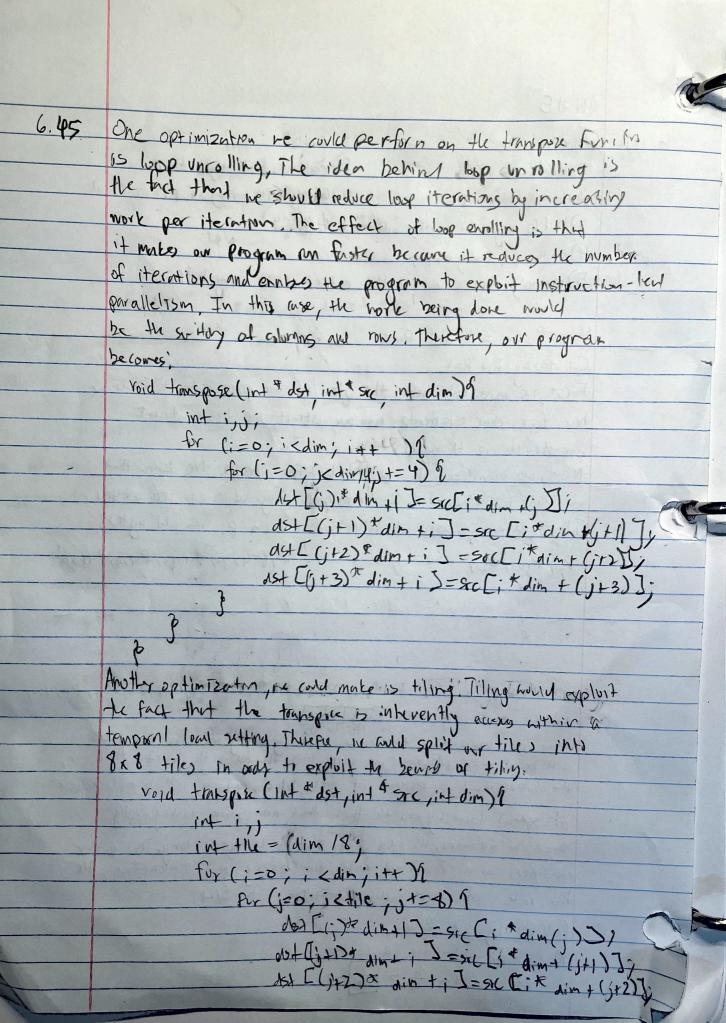
AW#5 6.41 Giren: 6) cacle has 4-byte likes Dsizeof (cha) = 1 2) size of (int) = LP 7/640 x 480 array of pixels (2-d 3) buffs begin at menory address & army) (P) cache is initially empty 5) memory accesses are to the entires of the array buffer. Mis Reite = 1- Hit Rate Calculating Hit Rate First, we must colculate the size of our pixel struct. Since me have four charelements in our struct we know that overstruct is 4 bytes long. is! Next, we visualize the pixel but for below. We know that our prixe 1 butter is a 2-dimensional way of size upo x 640. Thus, the army oppers as follows, where each p: is Lybytes; Por Pro / Pro/ . Po, D, Po, 1, Po, 477, Po, 479, Po, 479, Po, 479, Where each gi = Fig ba

Since we know that the rache is initially empty we know that there
will be a miss present we will mas the red in the struct. Ho were, Her subsequent 3 decesses of green, blue, and a will be hits become of spatial locality and the fact that averys are antiquously Stored in memory as well is the carris 4-bythes long. This patter continues at a constant rate for every p: . Therefore, the hit rate of our cacle isimplifies to 3/4. Calculating Hit Role

Miss Rule = 1- 4it Rate

= 1- = 14



det [(+3) din + i] = sec[; din + (; +3)]
det [(+5) v din + i] = sec[; din + (; +5)];

det [(+6) din + i] = sec[; din + (; +5)];

det [(+7) din + i] = sec[; din + (; +5)];