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CS33 HW #6

**Problem 6.41:**

Since it loops through all 4 members of that structure, and each member is a one byte char. The cache is made in 4 byte blocks and each block contains a pixel. This means that there is one miss and 3 hits. Leaving the miss rate to be %25.

**Problem 6.45:**

void transpose(int \*dst, int \*src, int dim)

{

const int block\_size = 64;

int i, j, x, y;

for (i = 0; i < dim; i+=block\_size){

for (j = 0; j < dim; j+=block\_size){

for (x = i; x < i + block\_size; x++){

for (y = j; y < j + block\_size; y++){

dst[y\*dim + x] = src[x\*dim + y];

}

}

}  
}

for (; x < dim; x++){

for(; y < dim; y++){

dst[y\*dim + x] = src[x\*dim + y];

}

}

}