

```

char* read_matrix(char* file_name) {
    FILE* f = fopen(file_name, "r");
    char w = fgetc(f);
    char h = fgetc(f);
    char s = w * h;
    char* out = (char*)malloc(s);
    char* aux = out;
    for (char c0 = 0; c0 < w; c0++) {
        for (char c1 = 0; c1 < h; c1++) {
            if ((*aux++ = fgetc(f)) == EOF) {
                goto L0;
            }
        }
    }
L0:
    fclose(f);
    return out;
}

```

$$\begin{aligned}
 w &= 0 \ 0 \ 0 \ 1 \ 0 \ 0 \ 0 \ 0 \ 0 = 16_{10} \\
 h &= 0 \ 0 \ 0 \ 1 \ 0 \ 0 \ 0 \ 0 \ 0 = 16_{10} \\
 h * w &= 1 \ \underline{0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0} = 256_{10} \\
 s &= 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 = 0_{10}
 \end{aligned}$$

