**Logan Anderson lja16**

Exercise 14.1.1: Suppose blocks hold either three records, or ten key-pointer pairs. As a function of n, the number of records, how many blocks do we need to hold a data file and: (a) A dense index (b) A sparse index?

1. **Since 1 block holds 3 records, *n* records holds *n*/3 blocks. For key pointers it is *n*/10. So the number of blocks total for a dense index is 13*n*/30.**
2. **For a sparse index, *n*/3 blocks will still be needed. But now *n*/30 is needed for the key pointers. This results in the total number of blocks needed to be 11*n*/30.**