

Name _____ **Andrew ID** _____

4.1 Statistics of the tables

1) Actual number of tuples: _____; estimated number by the optimizer: _____;
How do you find this information?

2)

Attribute Name	# of Distinct Values

4.2 Index on perfect match query

1) Estimated total cost is _____;

The cost of a plan means

2) The estimated result cardinality is _____;

How does the query optimizer get this value?

Is it a reasonable value? YES / NO

3) The access method is _____.

4) Order of the tuples returned by the plan:

Create index.

5) The access method now is _____.

6) Explanation

4.3 Index on range select

1) _____ tuples will be returned by this plan; the total cost is _____;

2) Explanation

3) The access method is _____;

Disable the access method in 3)

4) The total cost now is _____;

Order:

Is it the same as step 1)? YES / NO

5) Explanation:

4.4 Join algorithm

1) Estimated total cost is _____;

Plan Tree:

2) Use _____ join algorithm;

3) Number of tuples that will be retrieved from partsupp is _____;

Disable the join algorithm in 2)

4) Now the join algorithm is _____; the total cost is now _____

Disable the join algorithm in 2) and 4)

5) Now the join algorithm is _____; the total cost is now _____