

title

wbg231

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1 Introduction

q1

- If no caching is involved, wide dependencies are just as fast as narrow dependencies
- this is false, regardless of if we are caching (ie) saving data to memory a wide dependency has to use data from multiple partitions so it will have latency

question 3

- An RDD can depend on multiple parents and be reused by multiple descendants
- true
- The Dremel system was designed to efficiently process subsets of attributes over all records in a dataset.
- yep that is the point to look at cols not rows
- If a numerical column A has been compressed with run-length encoding, it must be decompressed to compute the average $\text{mean}(A)$.
- run length encoding maps a vector to each of its unique values and the number of times they appeared so false
- describe the roles of partitions in spark RDD's what do they do how do they effect distributed computing
- partitions are the amount of data that a worker node in RDD needs to work with
- we want the data in that partition to be as close as possible to the block the worker node is on

- raising the number of partitions beyond the number of workers means that after finishing one run, a worker will have to go back and do another (this increases communication costs)
- lowering the value of partitions below the number of workers means that some workers are dealing with a lot of data while others are idle
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