

MapReduce

Classroom example

This is the file to create a map reduce classroom example. The setup is as follows

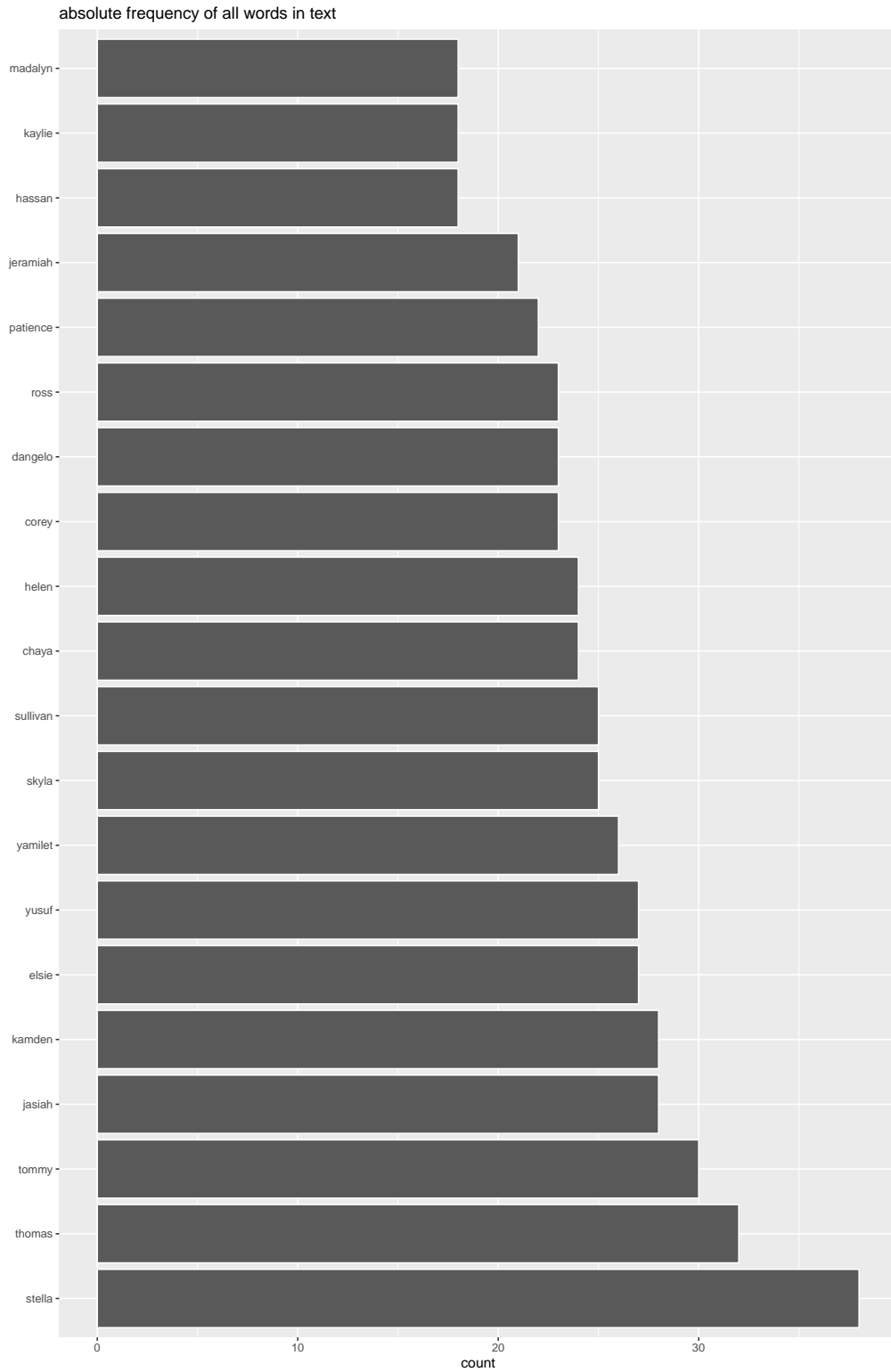
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student acts as the “reduce” server, collecting all the counts.
5. write the counts on the whiteboard including the times
6. which number of groups is the most efficient and which produces considerable overhead?

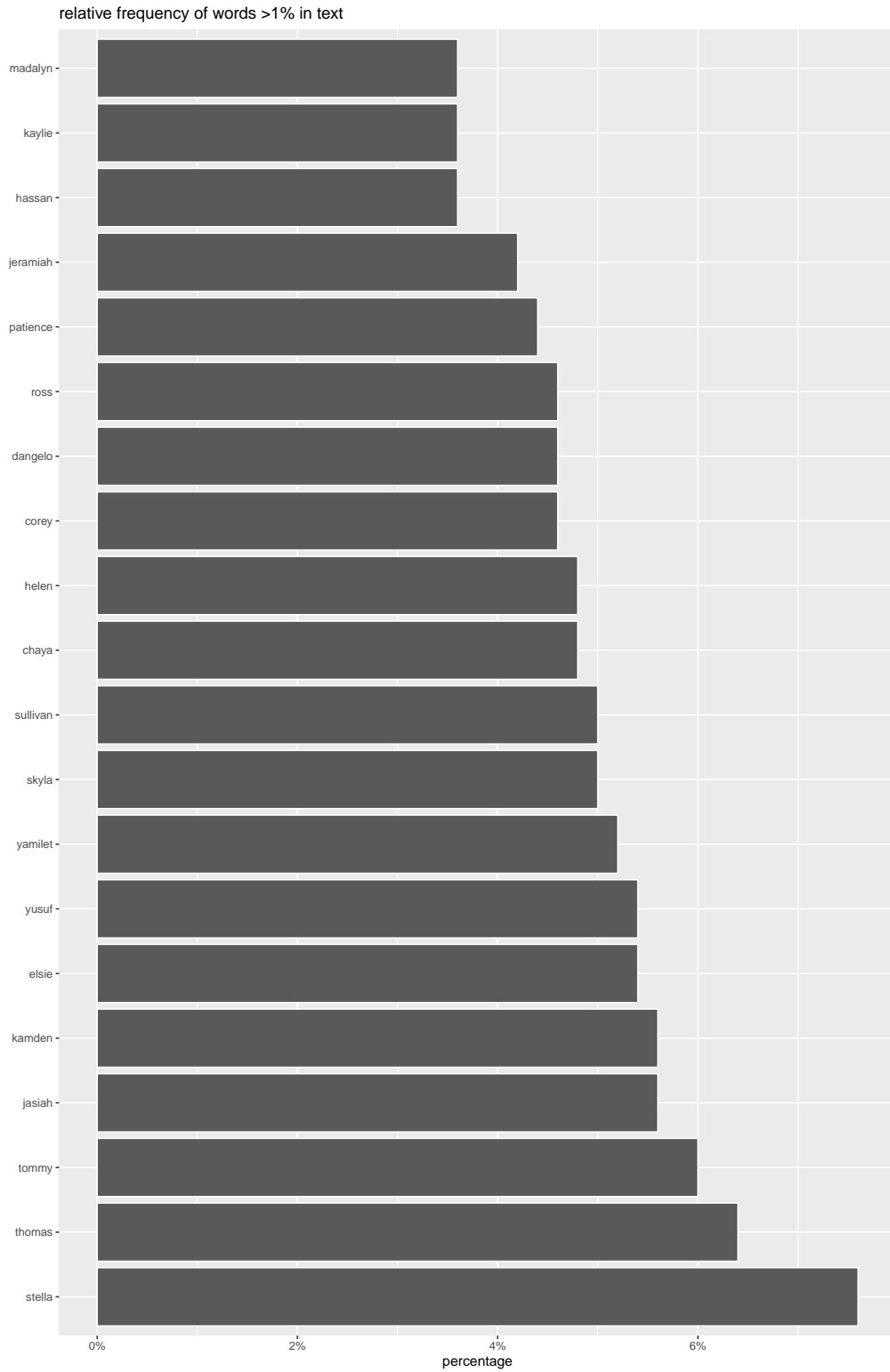
some summary statistics on the raw data

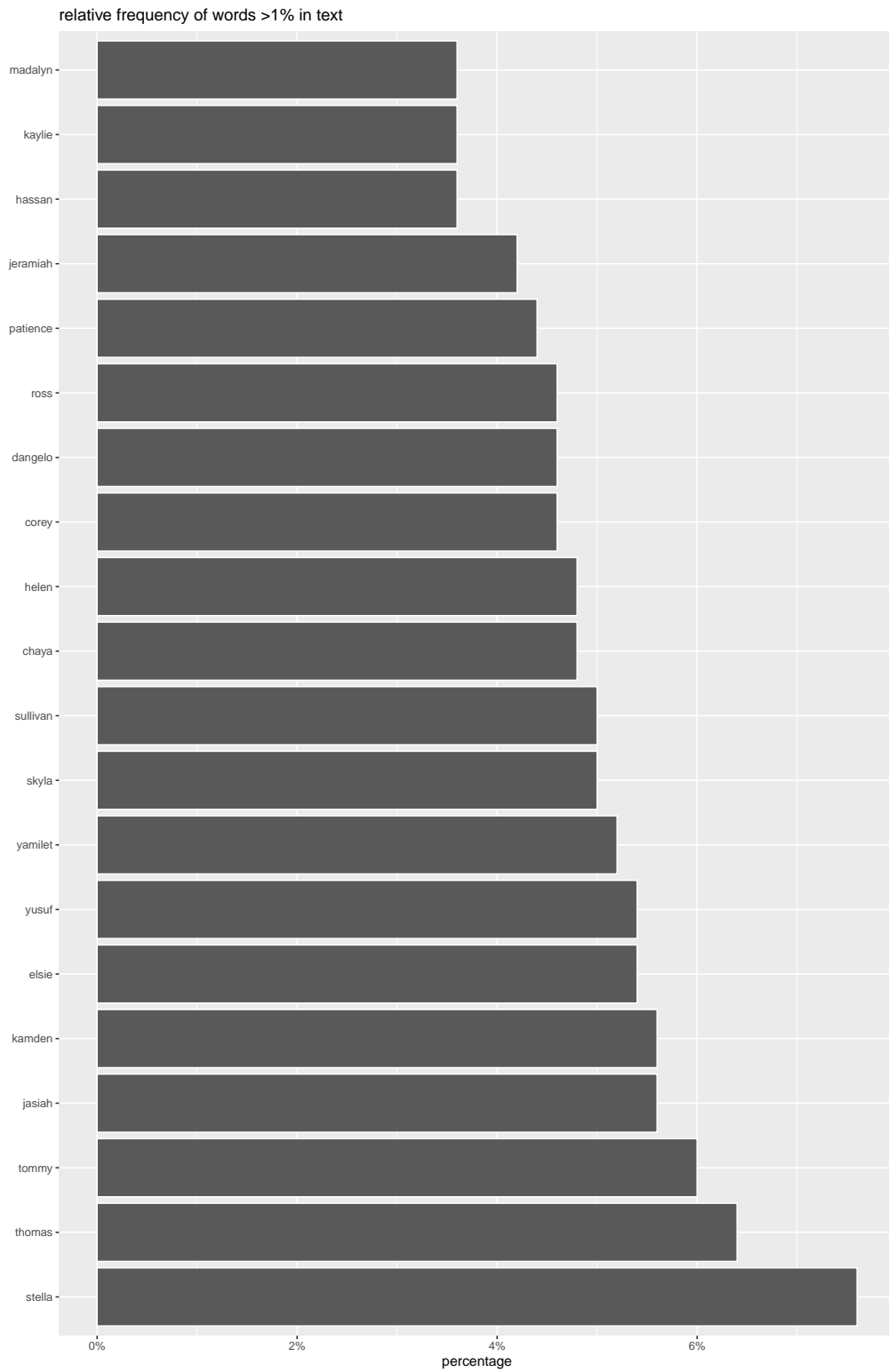
In total there are 500 words available.

words	Freq	percentage	percentage_round
stella	38	7.60%	7.60%
thomas	32	6.40%	6.40%
tommy	30	6.00%	6.00%
jasiah	28	5.60%	5.60%
kamden	28	5.60%	5.60%
elsie	27	5.40%	5.40%
yusuf	27	5.40%	5.40%
yamilet	26	5.20%	5.20%
skyla	25	5.00%	5.00%
sullivan	25	5.00%	5.00%
chaya	24	4.80%	4.80%
helen	24	4.80%	4.80%

corey	23	4.60%	4.60%
dangelo	23	4.60%	4.60%
ross	23	4.60%	4.60%
patience	22	4.40%	4.40%
jeramiah	21	4.20%	4.20%
hassan	18	3.60%	3.60%
kaylie	18	3.60%	3.60%
madalyn	18	3.60%	3.60%







The Raw data 01

Jasiah, Stella, Thomas, Stella, Ross , Yusuf, Corey, Yamilet, Madalyn, Elsie, Elsie, Helen, Helen, Hassan, Yusuf, Ross , Tommy, Sullivan, Tommy, Chaya, Chaya, Stella, Stella, Elsie, Tommy, Jeramiah, Corey, Ross , Yamilet, Elsie, Hassan, Jeramiah, Thomas, Thomas, Skyla, Yusuf, Skyla, Hassan, Thomas, Dangelo, Jasiah, Thomas, Patience, Jasiah, Sullivan, Yamilet, Jasiah, Jasiah, Corey, Stella, Jeramiah, Kaylie, Kaylie, Ross , Yusuf, Helen, Jasiah, Stella, Chaya, Sullivan, Yamilet, Thomas, Yusuf, Yamilet, Dangelo, Patience, Sullivan, Elsie, Skyla, Stella, Ross , Patience, Madalyn, Corey, Stella, Sullivan, Stella, Corey, Tommy, Ross , Yusuf, Dangelo, Chaya, Helen, Kaylie, Tommy, Ross , Jasiah, Skyla, Hassan, Stella, Helen, Tommy, Thomas, Jasiah, Stella, Skyla, Madalyn, Tommy, Helen, Patience, Sullivan, Elsie, Thomas, Dangelo, Stella, Yusuf, Patience, Jasiah, Kamden, Elsie, Stella, Thomas, Kaylie, Elsie, Tommy, Kamden, Skyla, Chaya, Stella, Chaya, Dangelo, Elsie, Corey, Stella, Corey, Tommy, Corey, Jasiah, Stella, Jeramiah, Yusuf, Kamden, Dangelo, Jeramiah, Tommy, Jeramiah, Ross , Tommy, Jasiah, Elsie, Madalyn, Kamden, Kamden, Stella, Yusuf, Kamden, Patience, Sullivan, Jeramiah, Elsie, Skyla, Madalyn, Thomas, Yamilet, Dangelo, Kamden, Ross , Helen, Jeramiah, Yusuf, Corey, Thomas, Skyla, Sullivan, Skyla, Tommy, Jeramiah, Kaylie, Madalyn, Yusuf, Madalyn, Tommy, Kamden, Kaylie, Elsie, Chaya, Hassan, Stella, Helen, Helen, Ross , Patience, Skyla, Yamilet, Helen, Elsie, Corey, Stella, Chaya, Thomas, Jeramiah, Hassan, Patience, Patience, Corey, Madalyn, Helen, Ross , Jasiah, Yamilet, Thomas, Dangelo, Hassan, Yusuf, Elsie, Elsie, Kamden, Yusuf, Dangelo, Tommy, Kamden, Kaylie, Helen, Jasiah, Kaylie, Ross , Ross , Helen, Sullivan, Jasiah, Patience, Hassan, Patience, Sullivan, Stella, Thomas, Tommy, Kamden, Hassan, Sullivan, Hassan, Jasiah, Madalyn, Hassan, Thomas, Thomas, Sullivan, Stella, Skyla, Sullivan, Madalyn, Thomas, Yusuf, Yusuf, Thomas, Kaylie, Kamden, Stella, Yamilet, Skyla, Yusuf, Tommy, Corey, Dangelo, Hassan, Jasiah, Corey, Ross , Tommy, Chaya, Yamilet, Yamilet, Jasiah, Yamilet, Chaya, Corey, Yusuf, Elsie, Jasiah, Skyla, Patience, Dangelo, Stella, Hassan, Corey, Skyla, Kaylie, Dangelo, Madalyn, Tommy, Madalyn, Madalyn, Kamden, Jasiah, Sullivan, Dangelo, Stella, Tommy, Kaylie, Elsie, Tommy, Yamilet, Jeramiah, Kaylie, Stella, Jeramiah, Patience, Sullivan, Thomas, Kamden, Hassan, Helen, Jasiah, Kamden, Helen, Kamden, Jasiah, Stella, Stella, Sullivan, Stella, Chaya, Jasiah, Chaya, Thomas, Stella, Jasiah, Dangelo, Tommy, Yusuf, Stella, Chaya, Kamden, Sullivan, Stella, Dangelo, Tommy, Tommy, Ross , Stella, Hassan, Chaya, Patience, Thomas, Skyla, Dangelo, Corey, Yamilet, Patience, Stella, Jeramiah, Tommy, Jeramiah, Helen, Helen, Dangelo, Jeramiah, Helen, Jeramiah, Yamilet, Chaya, Corey, Skyla, Elsie, Yusuf, Patience, Chaya, Thomas, Yamilet, Helen, Stella, Patience, Madalyn, Sullivan, Skyla, Skyla, Dangelo, Kaylie, Tommy, Kamden, Yusuf, Dangelo, Helen, Dangelo, Hassan, Tommy, Helen, Thomas, Thomas, Chaya, Kamden, Thomas, Kamden, Ross , Yusuf, Jasiah, Kaylie, Corey, Madalyn, Ross , Chaya, Ross , Elsie, Yusuf, Chaya, Chaya, Yusuf, Jasiah, Ross , Elsie, Thomas, Kamden, Helen, Jeramiah, Ross , Stella, Corey, Yusuf, Kamden, Sullivan, Patience, Stella, Jeramiah, Helen, Yusuf, Kaylie, Kamden, Patience, Skyla, Yamilet, Yamilet, Dangelo, Yamilet, Kamden, Chaya, Kamden, Yamilet, Kamden, Yamilet, Sullivan, Hassan, Jasiah, Ross , Patience, Yamilet, Dangelo, Elsie, Kamden, Yamilet, Sullivan, Ross , Thomas, Jeramiah, Skyla, Tommy, Kamden, Elsie, Thomas,

Sullivan, Elsie, Jasiah, Chaya, Thomas, Corey, Sullivan, Yusuf, Elsie, Patience, Jeramiah, Chaya, Sullivan, Skyla, Madalyn, Jeramiah, Skyla, Tommy, Kaylie, Chaya, Dangelo, Hassan, Yusuf, Tommy, Jasiah, Madalyn, Elsie, Corey, Tommy, Patience, Kaylie, Yamilet, Madalyn, Ross , Sullivan, Stella, Skyla, Thomas, Kaylie, Skyla, Corey, Elsie, Corey, Yamilet, Thomas, Yamilet, Thomas, Stella, Helen, Skyla, Elsie

The Raw data 02

Jasiah, Stella, Thomas, Stella, Ross , Yusuf, Corey, Yamilet, Madalyn, Elsie, Elsie, Helen, Helen, Hassan, Yusuf, Ross , Tommy, Sullivan, Tommy, Chaya, Chaya, Stella, Stella, Elsie, Tommy, Jeramiah, Corey, Ross , Yamilet, Elsie, Hassan, Jeramiah, Thomas, Thomas, Skyla, Yusuf, Skyla, Hassan, Thomas, Dangelo, Jasiah, Thomas, Patience, Jasiah, Sullivan, Yamilet, Jasiah, Jasiah, Corey, Stella, Jeramiah, Kaylie, Kaylie, Ross , Yusuf, Helen, Jasiah, Stella, Chaya, Sullivan, Yamilet, Thomas, Yusuf, Yamilet, Dangelo, Patience, Sullivan, Elsie, Skyla, Stella, Ross , Patience, Madalyn, Corey, Stella, Sullivan, Stella, Corey, Tommy, Ross , Yusuf, Dangelo, Chaya, Helen, Kaylie, Tommy, Ross , Jasiah, Skyla, Hassan, Stella, Helen, Tommy, Thomas, Jasiah, Stella, Skyla, Madalyn, Tommy, Helen, Patience, Sullivan, Elsie, Thomas, Dangelo, Stella, Yusuf, Patience, Jasiah, Kamden, Elsie, Stella, Thomas, Kaylie, Elsie, Tommy, Kamden, Skyla, Chaya, Stella, Chaya, Dangelo, Elsie, Corey, Stella, Corey, Tommy, Corey, Jasiah, Stella, Jeramiah, Yusuf, Kamden, Dangelo, Jeramiah, Tommy, Jeramiah, Ross , Tommy, Jasiah, Elsie, Madalyn, Kamden, Kamden, Stella, Yusuf, Kamden, Patience, Sullivan, Jeramiah, Elsie, Skyla, Madalyn, Thomas, Yamilet, Dangelo, Kamden, Ross , Helen, Jeramiah, Yusuf, Corey, Thomas, Skyla, Sullivan, Skyla, Tommy, Jeramiah, Kaylie, Madalyn, Yusuf, Madalyn, Tommy, Kamden, Kaylie, Elsie, Chaya, Hassan, Stella, Helen, Helen, Ross , Patience, Skyla, Yamilet, Helen, Elsie, Corey, Stella, Chaya, Thomas, Jeramiah, Hassan, Patience, Patience, Corey, Madalyn, Helen, Ross , Jasiah, Yamilet, Thomas, Dangelo, Hassan, Yusuf, Elsie, Elsie, Kamden, Yusuf, Dangelo, Tommy, Kamden, Kaylie, Helen, Jasiah, Kaylie, Ross , Ross , Helen, Sullivan, Jasiah, Patience, Hassan, Patience, Sullivan, Stella, Thomas, Tommy, Kamden, Hassan, Sullivan, Hassan, Jasiah, Madalyn, Hassan, Thomas, Thomas, Sullivan, Stella, Skyla, Sullivan, Madalyn, Thomas, Yusuf, Yusuf, Thomas, Kaylie, Kamden, Stella, Yamilet, Skyla, Yusuf, Tommy, Corey, Dangelo, Hassan, Jasiah, Corey, Ross , Tommy, Chaya, Yamilet, Yamilet, Jasiah, Yamilet, Chaya, Corey, Yusuf, Elsie, Jasiah, Skyla, Patience, Dangelo, Stella, Hassan, Corey, Skyla, Kaylie, Dangelo, Madalyn, Tommy, Madalyn, Madalyn, Kamden, Jasiah, Sullivan, Dangelo, Stella, Tommy, Kaylie, Elsie, Tommy, Yamilet, Jeramiah, Kaylie, Stella, Jeramiah, Patience, Sullivan, Thomas, Kamden, Hassan, Helen, Jasiah, Kamden, Helen, Kamden, Jasiah, Stella, Stella, Sullivan, Stella, Chaya, Jasiah, Chaya, Thomas, Stella, Jasiah, Dangelo, Tommy, Yusuf, Stella, Chaya, Kamden, Sullivan, Stella, Dangelo, Tommy, Tommy, Ross , Stella, Hassan, Chaya, Patience, Thomas, Skyla, Dangelo, Corey, Yamilet, Patience, Stella, Jeramiah, Tommy, Jeramiah, Helen, Helen, Dangelo, Jeramiah, Helen, Jeramiah, Yamilet, Chaya, Corey, Skyla, Elsie, Yusuf, Patience, Chaya, Thomas, Yamilet, Helen, Stella, Patience, Madalyn, Sullivan, Skyla, Skyla, Dangelo, Kaylie, Tommy, Kamden, Yusuf, Dangelo, Helen, Dangelo, Hassan, Tommy, Helen, Thomas, Thomas, Chaya, Kamden, Thomas, Kamden, Ross , Yusuf, Jasiah, Kaylie, Corey, Madalyn, Ross , Chaya, Ross , Elsie, Yusuf, Chaya, Chaya, Yusuf, Jasiah, Ross , Elsie, Thomas, Kamden, Helen, Jeramiah, Ross , Stella, Corey, Yusuf, Kamden, Sullivan, Patience, Stella, Jeramiah, Helen, Yusuf, Kaylie, Kamden, Patience, Skyla, Yamilet, Yamilet, Dangelo, Yamilet, Kamden, Chaya, Kamden, Yamilet, Kamden, Yamilet, Sullivan, Hassan, Jasiah, Ross , Patience, Yamilet, Dangelo, Elsie, Kamden, Yamilet, Sullivan, Ross , Thomas, Jeramiah, Skyla, Tommy, Kamden, Elsie, Thomas,

Sullivan, Elsie, Jasiah, Chaya, Thomas, Corey, Sullivan, Yusuf, Elsie, Patience, Jeramiah, Chaya, Sullivan, Skyla, Madalyn, Jeramiah, Skyla, Tommy, Kaylie, Chaya, Dangelo, Hassan, Yusuf, Tommy, Jasiah, Madalyn, Elsie, Corey, Tommy, Patience, Kaylie, Yamilet, Madalyn, Ross , Sullivan, Stella, Skyla, Thomas, Kaylie, Skyla, Corey, Elsie, Corey, Yamilet, Thomas, Yamilet, Thomas, Stella, Helen, Skyla, Elsie

The Raw data 03

Jasiah, Stella, Thomas, Stella, Ross , Yusuf, Corey, Yamilet, Madalyn, Elsie, Elsie, Helen, Helen, Hassan, Yusuf, Ross , Tommy, Sullivan, Tommy, Chaya, Chaya, Stella, Stella, Elsie, Tommy, Jeramiah, Corey, Ross , Yamilet, Elsie, Hassan, Jeramiah, Thomas, Thomas, Skyla, Yusuf, Skyla, Hassan, Thomas, Dangelo, Jasiah, Thomas, Patience, Jasiah, Sullivan, Yamilet, Jasiah, Jasiah, Corey, Stella, Jeramiah, Kaylie, Kaylie, Ross , Yusuf, Helen, Jasiah, Stella, Chaya, Sullivan, Yamilet, Thomas, Yusuf, Yamilet, Dangelo, Patience, Sullivan, Elsie, Skyla, Stella, Ross , Patience, Madalyn, Corey, Stella, Sullivan, Stella, Corey, Tommy, Ross , Yusuf, Dangelo, Chaya, Helen, Kaylie, Tommy, Ross , Jasiah, Skyla, Hassan, Stella, Helen, Tommy, Thomas, Jasiah, Stella, Skyla, Madalyn, Tommy, Helen, Patience, Sullivan, Elsie, Thomas, Dangelo, Stella, Yusuf, Patience, Jasiah, Kamden, Elsie, Stella, Thomas, Kaylie, Elsie, Tommy, Kamden, Skyla, Chaya, Stella, Chaya, Dangelo, Elsie, Corey, Stella, Corey, Tommy, Corey, Jasiah, Stella, Jeramiah, Yusuf, Kamden, Dangelo, Jeramiah, Tommy, Jeramiah, Ross , Tommy, Jasiah, Elsie, Madalyn, Kamden, Kamden, Stella, Yusuf, Kamden, Patience, Sullivan, Jeramiah, Elsie, Skyla, Madalyn, Thomas, Yamilet, Dangelo, Kamden, Ross , Helen, Jeramiah, Yusuf, Corey, Thomas, Skyla, Sullivan, Skyla, Tommy, Jeramiah, Kaylie, Madalyn, Yusuf, Madalyn, Tommy, Kamden, Kaylie, Elsie, Chaya, Hassan, Stella, Helen, Helen, Ross , Patience, Skyla, Yamilet, Helen, Elsie, Corey, Stella, Chaya, Thomas, Jeramiah, Hassan, Patience, Patience, Corey, Madalyn, Helen, Ross , Jasiah, Yamilet, Thomas, Dangelo, Hassan, Yusuf, Elsie, Elsie, Kamden, Yusuf, Dangelo, Tommy, Kamden, Kaylie, Helen, Jasiah, Kaylie, Ross , Ross , Helen, Sullivan, Jasiah, Patience, Hassan, Patience, Sullivan, Stella, Thomas, Tommy, Kamden, Hassan, Sullivan, Hassan, Jasiah, Madalyn, Hassan, Thomas, Thomas, Sullivan, Stella, Skyla, Sullivan, Madalyn, Thomas, Yusuf, Yusuf, Thomas, Kaylie, Kamden, Stella, Yamilet, Skyla, Yusuf, Tommy, Corey, Dangelo, Hassan, Jasiah, Corey, Ross , Tommy, Chaya, Yamilet, Yamilet, Jasiah, Yamilet, Chaya, Corey, Yusuf, Elsie, Jasiah, Skyla, Patience, Dangelo, Stella, Hassan, Corey, Skyla, Kaylie, Dangelo, Madalyn, Tommy, Madalyn, Madalyn, Kamden, Jasiah, Sullivan, Dangelo, Stella, Tommy, Kaylie, Elsie, Tommy, Yamilet, Jeramiah, Kaylie, Stella, Jeramiah, Patience, Sullivan, Thomas, Kamden, Hassan, Helen, Jasiah, Kamden, Helen, Kamden, Jasiah, Stella, Stella, Sullivan, Stella, Chaya, Jasiah, Chaya, Thomas, Stella, Jasiah, Dangelo, Tommy, Yusuf, Stella, Chaya, Kamden, Sullivan, Stella, Dangelo, Tommy, Tommy, Ross , Stella, Hassan, Chaya, Patience, Thomas, Skyla, Dangelo, Corey, Yamilet, Patience, Stella, Jeramiah, Tommy, Jeramiah, Helen, Helen, Dangelo, Jeramiah, Helen, Jeramiah, Yamilet, Chaya, Corey, Skyla, Elsie, Yusuf, Patience, Chaya, Thomas, Yamilet, Helen, Stella, Patience, Madalyn, Sullivan, Skyla, Skyla, Dangelo, Kaylie, Tommy, Kamden, Yusuf, Dangelo, Helen, Dangelo, Hassan, Tommy, Helen, Thomas, Thomas, Chaya, Kamden, Thomas, Kamden, Ross , Yusuf, Jasiah, Kaylie, Corey, Madalyn, Ross , Chaya, Ross , Elsie, Yusuf, Chaya, Chaya, Yusuf, Jasiah, Ross , Elsie, Thomas, Kamden, Helen, Jeramiah, Ross , Stella, Corey, Yusuf, Kamden, Sullivan, Patience, Stella, Jeramiah, Helen, Yusuf, Kaylie, Kamden, Patience, Skyla, Yamilet, Yamilet, Dangelo, Yamilet, Kamden, Chaya, Kamden, Yamilet, Kamden, Yamilet, Sullivan, Hassan, Jasiah, Ross , Patience, Yamilet, Dangelo, Elsie, Kamden, Yamilet, Sullivan, Ross , Thomas, Jeramiah, Skyla, Tommy, Kamden, Elsie, Thomas,

Sullivan, Elsie, Jasiah, Chaya, Thomas, Corey, Sullivan, Yusuf, Elsie, Patience, Jeramiah, Chaya, Sullivan, Skyla, Madalyn, Jeramiah, Skyla, Tommy, Kaylie, Chaya, Dangelo, Hassan, Yusuf, Tommy, Jasiah, Madalyn, Elsie, Corey, Tommy, Patience, Kaylie, Yamilet, Madalyn, Ross , Sullivan, Stella, Skyla, Thomas, Kaylie, Skyla, Corey, Elsie, Corey, Yamilet, Thomas, Yamilet, Thomas, Stella, Helen, Skyla, Elsie

The Raw data 04

Jasiah, Stella, Thomas, Stella, Ross , Yusuf, Corey, Yamilet, Madalyn, Elsie, Elsie, Helen, Helen, Hassan, Yusuf, Ross , Tommy, Sullivan, Tommy, Chaya, Chaya, Stella, Stella, Elsie, Tommy, Jeramiah, Corey, Ross , Yamilet, Elsie, Hassan, Jeramiah, Thomas, Thomas, Skyla, Yusuf, Skyla, Hassan, Thomas, Dangelo, Jasiah, Thomas, Patience, Jasiah, Sullivan, Yamilet, Jasiah, Jasiah, Corey, Stella, Jeramiah, Kaylie, Kaylie, Ross , Yusuf, Helen, Jasiah, Stella, Chaya, Sullivan, Yamilet, Thomas, Yusuf, Yamilet, Dangelo, Patience, Sullivan, Elsie, Skyla, Stella, Ross , Patience, Madalyn, Corey, Stella, Sullivan, Stella, Corey, Tommy, Ross , Yusuf, Dangelo, Chaya, Helen, Kaylie, Tommy, Ross , Jasiah, Skyla, Hassan, Stella, Helen, Tommy, Thomas, Jasiah, Stella, Skyla, Madalyn, Tommy, Helen, Patience, Sullivan, Elsie, Thomas, Dangelo, Stella, Yusuf, Patience, Jasiah, Kamden, Elsie, Stella, Thomas, Kaylie, Elsie, Tommy, Kamden, Skyla, Chaya, Stella, Chaya, Dangelo, Elsie, Corey, Stella, Corey, Tommy, Corey, Jasiah, Stella, Jeramiah, Yusuf, Kamden, Dangelo, Jeramiah, Tommy, Jeramiah, Ross , Tommy, Jasiah, Elsie, Madalyn, Kamden, Kamden, Stella, Yusuf, Kamden, Patience, Sullivan, Jeramiah, Elsie, Skyla, Madalyn, Thomas, Yamilet, Dangelo, Kamden, Ross , Helen, Jeramiah, Yusuf, Corey, Thomas, Skyla, Sullivan, Skyla, Tommy, Jeramiah, Kaylie, Madalyn, Yusuf, Madalyn, Tommy, Kamden, Kaylie, Elsie, Chaya, Hassan, Stella, Helen, Helen, Ross , Patience, Skyla, Yamilet, Helen, Elsie, Corey, Stella, Chaya, Thomas, Jeramiah, Hassan, Patience, Patience, Corey, Madalyn, Helen, Ross , Jasiah, Yamilet, Thomas, Dangelo, Hassan, Yusuf, Elsie, Elsie, Kamden, Yusuf, Dangelo, Tommy, Kamden, Kaylie, Helen, Jasiah, Kaylie, Ross , Ross , Helen, Sullivan, Jasiah, Patience, Hassan, Patience, Sullivan, Stella, Thomas, Tommy, Kamden, Hassan, Sullivan, Hassan, Jasiah, Madalyn, Hassan, Thomas, Thomas, Sullivan, Stella, Skyla, Sullivan, Madalyn, Thomas, Yusuf, Yusuf, Thomas, Kaylie, Kamden, Stella, Yamilet, Skyla, Yusuf, Tommy, Corey, Dangelo, Hassan, Jasiah, Corey, Ross , Tommy, Chaya, Yamilet, Yamilet, Jasiah, Yamilet, Chaya, Corey, Yusuf, Elsie, Jasiah, Skyla, Patience, Dangelo, Stella, Hassan, Corey, Skyla, Kaylie, Dangelo, Madalyn, Tommy, Madalyn, Madalyn, Kamden, Jasiah, Sullivan, Dangelo, Stella, Tommy, Kaylie, Elsie, Tommy, Yamilet, Jeramiah, Kaylie, Stella, Jeramiah, Patience, Sullivan, Thomas, Kamden, Hassan, Helen, Jasiah, Kamden, Helen, Kamden, Jasiah, Stella, Stella, Sullivan, Stella, Chaya, Jasiah, Chaya, Thomas, Stella, Jasiah, Dangelo, Tommy, Yusuf, Stella, Chaya, Kamden, Sullivan, Stella, Dangelo, Tommy, Tommy, Ross , Stella, Hassan, Chaya, Patience, Thomas, Skyla, Dangelo, Corey, Yamilet, Patience, Stella, Jeramiah, Tommy, Jeramiah, Helen, Helen, Dangelo, Jeramiah, Helen, Jeramiah, Yamilet, Chaya, Corey, Skyla, Elsie, Yusuf, Patience, Chaya, Thomas, Yamilet, Helen, Stella, Patience, Madalyn, Sullivan, Skyla, Skyla, Dangelo, Kaylie, Tommy, Kamden, Yusuf, Dangelo, Helen, Dangelo, Hassan, Tommy, Helen, Thomas, Thomas, Chaya, Kamden, Thomas, Kamden, Ross , Yusuf, Jasiah, Kaylie, Corey, Madalyn, Ross , Chaya, Ross , Elsie, Yusuf, Chaya, Chaya, Yusuf, Jasiah, Ross , Elsie, Thomas, Kamden, Helen, Jeramiah, Ross , Stella, Corey, Yusuf, Kamden, Sullivan, Patience, Stella, Jeramiah, Helen, Yusuf, Kaylie, Kamden, Patience, Skyla, Yamilet, Yamilet, Dangelo, Yamilet, Kamden, Chaya, Kamden, Yamilet, Kamden, Yamilet, Sullivan, Hassan, Jasiah, Ross , Patience, Yamilet, Dangelo, Elsie, Kamden, Yamilet, Sullivan, Ross , Thomas, Jeramiah, Skyla, Tommy, Kamden, Elsie, Thomas,

Sullivan, Elsie, Jasiah, Chaya, Thomas, Corey, Sullivan, Yusuf, Elsie, Patience, Jeramiah, Chaya, Sullivan, Skyla, Madalyn, Jeramiah, Skyla, Tommy, Kaylie, Chaya, Dangelo, Hassan, Yusuf, Tommy, Jasiah, Madalyn, Elsie, Corey, Tommy, Patience, Kaylie, Yamilet, Madalyn, Ross , Sullivan, Stella, Skyla, Thomas, Kaylie, Skyla, Corey, Elsie, Corey, Yamilet, Thomas, Yamilet, Thomas, Stella, Helen, Skyla, Elsie

Two Groups

Part 1 of 2 (250 words)

jasiah thomas ross corey madalyn elsie helen yusuf tommy tommy chaya stella tommy corey yamilet hassan thomas skyla skyla thomas jasiah patience sullivan jasiah corey jeramiah kaylie yusuf jasiah chaya yamilet yusuf dangelo sullivan skyla ross madalyn stella stella tommy yusuf chaya kaylie ross skyla stella tommy jasiah skyla tommy patience elsie dangelo yusuf jasiah elsie thomas elsie kamden chaya chaya elsie stella tommy jasiah jeramiah kamden jeramiah jeramiah tommy elsie kamden stella kamden sullivan elsie madalyn yamilet kamden helen yusuf thomas sullivan tommy kaylie yusuf tommy kaylie chaya stella helen patience yamilet elsie stella thomas hassan patience madalyn ross yamilet dangelo yusuf elsie yusuf tommy kaylie jasiah ross helen jasiah hassan sullivan thomas kamden sullivan jasiah hassan thomas stella sullivan thomas yusuf kaylie stella skyla tommy dangelo jasiah ross chaya yamilet yamilet corey elsie skyla dangelo hassan skyla dangelo tommy madalyn jasiah dangelo tommy elsie yamilet kaylie jeramiah sullivan kamden helen kamden kamden stella sullivan chaya chaya stella dangelo yusuf chaya sullivan dangelo tommy stella chaya thomas dangelo yamilet stella tommy helen dangelo helen yamilet corey elsie patience thomas helen patience sullivan skyla kaylie kamden dangelo dangelo tommy thomas chaya thomas ross jasiah corey ross ross yusuf chaya jasiah elsie kamden jeramiah stella yusuf sullivan stella helen kaylie patience yamilet dangelo kamden kamden kamden sullivan jasiah patience dangelo kamden sullivan thomas skyla kamden thomas elsie chaya corey yusuf patience chaya skyla jeramiah tommy chaya hassan tommy madalyn corey patience yamilet ross stella thomas skyla elsie yamilet yamilet stella skyla

Part 2 of 2 (250 words)

stella stella yusuf yamilet elsie helen hassan ross sullivan chaya stella elsie jeramiah ross elsie
jeramiah thomas yusuf hassan dangelo thomas jasiah yamilet jasiah stella kaylie ross helen
stella sullivan thomas yamilet patience elsie stella patience corey sullivan corey ross dangelo
helen tommy jasiah hassan helen thomas stella madalyn helen sullivan thomas stella patience
kamden stella kaylie tommy skyla stella dangelo corey corey corey stella yusuf dangelo tommy
ross jasiah madalyn kamden yusuf patience jeramiah skyla thomas dangelo ross jeramiah corey
skyla skyla jeramiah madalyn madalyn kamden elsie hassan helen ross skyla helen corey chaya
jeramiah patience corey helen jasiah thomas hassan elsie kamden dangelo kamden helen kaylie
ross sullivan patience patience stella tommy hassan hassan madalyn thomas sullivan skyla
madalyn yusuf thomas kamden yamilet yusuf corey hassan corey tommy yamilet jasiah chaya
yusuf jasiah patience stella corey kaylie madalyn madalyn kamden sullivan stella kaylie tommy
jeramiah stella patience thomas hassan jasiah helen jasiah stella stella jasiah thomas jasiah
tommy stella kamden stella tommy ross hassan patience skyla corey patience jeramiah jeramiah
helen jeramiah jeramiah chaya skyla yusuf chaya yamilet stella madalyn skyla dangelo tommy
yusuf helen hassan helen thomas kamden kamden yusuf kaylie madalyn chaya elsie chaya yusuf
ross thomas helen ross corey kamden patience jeramiah yusuf kamden skyla yamilet yamilet
chaya yamilet yamilet hassan ross yamilet elsie yamilet ross jeramiah tommy elsie sullivan
jasiah thomas sullivan elsie jeramiah sullivan madalyn skyla kaylie dangelo yusuf jasiah elsie
tommy kaylie madalyn sullivan skyla kaylie corey corey thomas thomas helen elsie

Four Groups

Part 1 of 4 (125 words)

jasiah ross madalyn helen tommy chaya tommy yamilet thomas skyla jasiah sullivan corey kaylie jasiah yamilet dangelo skyla madalyn stella yusuf kaylie skyla tommy skyla patience dangelo jasiah thomas kamden chaya stella jasiah kamden jeramiah elsie stella sullivan madalyn kamden yusuf sullivan kaylie tommy chaya helen yamilet stella hassan madalyn yamilet yusuf yusuf kaylie ross jasiah sullivan kamden jasiah thomas sullivan yusuf stella tommy jasiah chaya yamilet elsie dangelo skyla tommy jasiah tommy yamilet jeramiah kamden kamden stella chaya stella yusuf sullivan tommy chaya dangelo stella helen helen corey patience helen sullivan kaylie dangelo tommy chaya ross corey ross chaya elsie jeramiah yusuf stella kaylie yamilet kamden kamden jasiah dangelo sullivan skyla thomas chaya yusuf chaya jeramiah chaya tommy corey yamilet stella skyla yamilet stella

Part 2 of 4 (125 words)

stella yusuf elsie hassan sullivan stella jeramiah elsie thomas hassan thomas yamilet stella
ross stella thomas patience stella corey corey dangelo tommy hassan thomas madalyn sullivan
stella kamden kaylie skyla dangelo corey stella dangelo ross madalyn yusuf jeramiah thomas
ross corey skyla madalyn kamden hassan ross helen chaya patience helen thomas elsie dangelo
helen ross patience stella hassan madalyn sullivan madalyn thomas yamilet corey corey yamilet
chaya jasiah stella kaylie madalyn sullivan kaylie jeramiah patience hassan helen stella jasiah
jasiah stella stella ross patience corey jeramiah helen jeramiah skyla chaya stella skyla tommy
helen helen kamden yusuf madalyn elsie yusuf thomas ross kamden jeramiah kamden yamilet
chaya yamilet ross elsie ross tommy sullivan thomas elsie sullivan skyla dangelo jasiah tommy
madalyn skyla corey thomas helen

Part 3 of 4 (125 words)

thomas corey elsie yusuf tommy stella corey hassan skyla thomas patience jasiah jeramiah yusuf
chaya yusuf sullivan ross stella tommy chaya ross stella jasiah tommy elsie yusuf elsie elsie chaya
elsie tommy jeramiah jeramiah tommy kamden kamden elsie yamilet helen thomas tommy
yusuf kaylie stella patience elsie thomas patience ross dangelo elsie tommy jasiah helen hassan
thomas sullivan hassan stella thomas kaylie skyla dangelo ross yamilet corey skyla hassan
dangelo madalyn dangelo elsie kaylie sullivan helen kamden sullivan chaya dangelo chaya
dangelo stella thomas yamilet tommy dangelo yamilet elsie thomas patience skyla kamden
dangelo thomas thomas jasiah ross yusuf jasiah kamden stella sullivan helen patience dangelo
kamden sullivan patience kamden thomas kamden elsie corey patience skyla tommy hassan
madalyn patience ross thomas elsie yamilet skyla

Part 4 of 4 (125 words)

stella yamilet helen ross chaya elsie ross jeramiah yusuf dangelo jasiah jasiah kaylie helen
sullivan yamilet elsie patience sullivan ross helen jasiah helen stella helen thomas patience
stella tommy stella corey corey yusuf tommy jasiah kamden patience skyla dangelo jeramiah
skyla jeramiah madalyn elsie helen skyla corey jeramiah corey jasiah hassan kamden kamden
kaylie sullivan patience tommy hassan thomas skyla yusuf kamden yusuf hassan tommy jasiah
yusuf patience corey madalyn kamden stella tommy stella thomas jasiah jasiah stella thomas
tommy kamden tommy hassan skyla patience jeramiah jeramiah chaya yusuf yamilet madalyn
dangelo yusuf hassan thomas kamden kaylie chaya chaya ross helen corey patience yusuf skyla
yamilet yamilet hassan yamilet yamilet jeramiah elsie jasiah sullivan jeramiah madalyn kaylie
yusuf elsie kaylie sullivan kaylie corey thomas elsie

Five Groups

Part 1 of 5 (100 words)

jasiah yusuf elsie ross chaya jeramiah hassan yusuf jasiah yamilet jeramiah helen yamilet
patience ross sullivan yusuf tommy stella stella patience stella elsie tommy chaya corey jeramiah
tommy elsie yusuf elsie dangelo yusuf skyla yusuf elsie helen helen thomas corey yamilet elsie
tommy kaylie jasiah stella sullivan thomas sullivan thomas skyla hassan chaya chaya skyla
corey tommy sullivan elsie stella kamden helen sullivan thomas yusuf stella stella skyla stella
helen yamilet yusuf helen skyla kamden hassan chaya yusuf ross chaya elsie ross sullivan yusuf
yamilet chaya sullivan yamilet sullivan tommy elsie sullivan chaya skyla hassan elsie yamilet
skyla elsie thomas

Part 2 of 5 (100 words)

stella corey helen tommy stella corey jeramiah skyla thomas jasiah kaylie jasiah thomas sullivan
patience stella dangelo ross helen skyla sullivan yusuf stella kamden dangelo tommy yusuf
jeramiah madalyn kamden skyla kamden corey tommy madalyn chaya ross elsie jeramiah
madalyn thomas elsie kamden ross patience thomas hassan thomas madalyn kaylie yusuf
jasiah yamilet corey patience skyla madalyn dangelo tommy jeramiah hassan kamden stella
stella stella dangelo hassan dangelo jeramiah dangelo chaya patience stella skyla yusuf tommy
kamden jasiah chaya chaya thomas stella patience kaylie yamilet kamden hassan dangelo ross
kamden jasiah yusuf sullivan tommy yusuf corey madalyn thomas corey stella

Part 3 of 5 (100 words)

thomas yamilet helen sullivan stella ross thomas hassan patience jasiah kaylie stella yusuf elsie
madalyn corey chaya jasiah tommy madalyn elsie patience thomas skyla elsie corey kamden
ross kamden patience madalyn ross thomas jeramiah tommy hassan patience corey hassan
helen dangelo kamden kaylie ross hassan tommy jasiah sullivan thomas kamden tommy corey
yamilet yusuf dangelo kaylie madalyn stella yamilet patience helen jasiah chaya jasiah chaya
tommy chaya corey tommy jeramiah corey chaya patience dangelo dangelo helen thomas kaylie
ross yusuf kamden corey stella kamden dangelo yamilet jasiah elsie thomas elsie chaya elsie
skyla kaylie tommy tommy ross kaylie yamilet helen

Part 4 of 5 (100 words)

stella madalyn hassan tommy elsie yamilet thomas thomas jasiah corey ross chaya yamilet
skylar corey tommy helen skylar thomas tommy thomas jasiah kaylie chaya corey jasiah dangelo
tommy kamden sullivan thomas helen skylar kaylie kamden stella skylar stella patience ross
hassan yusuf helen helen patience kamden madalyn stella yusuf stella corey ross jasiah elsie
stella dangelo kamden tommy jeramiah sullivan jasiah stella jasiah dangelo kamden tommy
patience yamilet jeramiah helen skylar thomas madalyn kaylie helen thomas kamden corey elsie
jasiah helen yusuf jeramiah patience yamilet kamden ross kamden jeramiah thomas thomas
patience madalyn chaya jasiah patience sullivan skylar thomas skylar

Part 5 of 5 (100 words)

ross elsie yusuf chaya tommy elsie skyla dangelo sullivan stella yusuf sullivan dangelo stella
stella ross kaylie hassan jasiah helen dangelo kamden elsie stella stella stella jeramiah jasiah
stella jeramiah yamilet jeramiah sullivan madalyn kaylie helen yamilet chaya patience jasiah
yusuf dangelo jasiah sullivan sullivan hassan hassan skyla yusuf yamilet dangelo tommy yamilet
jasiah hassan madalyn jasiah kaylie kaylie thomas kamden stella chaya tommy sullivan ross
thomas patience helen jeramiah elsie yamilet sullivan tommy dangelo thomas ross madalyn
yusuf ross jeramiah kamden helen skyla kamden yamilet patience yamilet skyla sullivan corey
jeramiah jeramiah dangelo madalyn kaylie stella corey yamilet elsie

Ten Groups

Part 1 of 10 (50 words)

jasiah elsie chaya hassan jasiah jeramiah yamilet ross yusuf stella patience elsie chaya jeramiah
elsie elsie yusuf yusuf helen thomas yamilet tommy jasiah sullivan sullivan skyla chaya skyla
tommy elsie kamden sullivan yusuf stella stella yamilet helen kamden chaya ross elsie sullivan
yamilet sullivan sullivan elsie chaya hassan yamilet elsie

Part 2 of 10 (50 words)

stella helen stella jeramiah thomas kaylie thomas patience dangelo helen sullivan stella dangelo
yusuf madalyn skyla corey madalyn ross jeramiah thomas kamden patience hassan madalyn
yusuf yamilet patience madalyn tommy hassan stella stella hassan jeramiah chaya stella yusuf
kamden chaya thomas patience yamilet hassan ross jasiah sullivan yusuf madalyn corey

Part 3 of 10 (50 words)

thomas helen stella thomas patience kaylie yusuf madalyn chaya tommy elsie thomas elsie kamden kamden madalyn thomas tommy patience hassan dangelo kaylie hassan jasiah thomas tommy yamilet dangelo madalyn yamilet helen chaya chaya chaya tommy corey patience dangelo thomas ross kamden stella dangelo jasiah thomas chaya skyla tommy ross yamilet

Part 4 of 10 (50 words)

stella hassan elsie thomas jasiah ross yamilet corey helen thomas thomas kaylie corey dangelo
kamden thomas skyla kamden skyla patience hassan helen patience madalyn yusuf corey jasiah
stella kamden jeramiah jasiah jasiah kamden patience jeramiah skyla madalyn helen kamden
elsie helen jeramiah yamilet ross jeramiah thomas madalyn jasiah sullivan thomas

Part 5 of 10 (50 words)

ross yusuf tommy skyla sullivan yusuf dangelo stella kaylie jasiah dangelo elsie stella jeramiah
stella yamilet sullivan kaylie yamilet patience yusuf jasiah sullivan hassan yusuf dangelo
yamilet hassan jasiah kaylie kamden chaya sullivan thomas helen elsie sullivan dangelo ross
yusuf jeramiah helen kamden patience skyla corey jeramiah madalyn stella yamilet

Part 6 of 10 (50 words)

yusuf ross jeramiah yusuf yamilet helen patience sullivan tommy stella stella tommy corey
tommy yusuf dangelo skyla elsie helen corey elsie kaylie stella thomas thomas hassan chaya
corey sullivan stella helen thomas stella skyla helen yusuf skyla hassan yusuf chaya ross yusuf
chaya yamilet tommy sullivan skyla elsie skyla thomas

Part 7 of 10 (50 words)

corey tommy corey skyla jasiah jasiah sullivan stella ross skyla yusuf kamden tommy jeramiah
kamden kamden tommy chaya elsie madalyn elsie ross thomas thomas kaylie jasiah corey skyla
dangelo jeramiah kamden stella dangelo dangelo dangelo patience skyla tommy jasiah chaya
stella kaylie kamden dangelo kamden yusuf tommy corey thomas stella

Part 8 of 10 (50 words)

yamilet sullivan ross hassan jasiah stella elsie corey jasiah madalyn patience skyla corey ross
patience ross jeramiah hassan corey helen kamden ross tommy sullivan kamden corey yusuf
kaylie stella patience jasiah jasiah tommy corey jeramiah chaya dangelo helen kaylie yusuf
corey kamden yamilet elsie elsie elsie kaylie tommy kaylie helen

Part 9 of 10 (50 words)

madalyn tommy yamilet thomas corey chaya skyla tommy skyla tommy jasiah chaya jasiah
tommy sullivan helen kaylie stella stella ross yusuf helen kamden stella stella ross elsie dangelo
tommy sullivan stella dangelo tommy yamilet helen thomas kaylie thomas corey jasiah yusuf
patience kamden kamden thomas patience chaya patience skyla skyla

Part 10 of 10 (50 words)

elsie chaya elsie dangelo stella sullivan stella ross hassan helen kamden stella stella jasiah
jeramiah jeramiah madalyn helen chaya jasiah dangelo sullivan hassan skyla yamilet tommy
jasiah madalyn kaylie thomas stella tommy ross patience jeramiah yamilet tommy thomas
madalyn ross kamden skyla yamilet yamilet sullivan jeramiah dangelo kaylie corey elsie

Twenty Groups

Part 1 of 20 (25 words)

jasiah chaya jasiah yamilet yusuf patience chaya elsie yusuf helen yamilet jasiah sullivan chaya
tommy kamden yusuf stella helen chaya elsie yamilet sullivan chaya yamilet

Part 2 of 20 (25 words)

stella stella thomas thomas dangelo sullivan dangelo madalyn corey ross thomas patience
madalyn yamilet madalyn hassan stella jeramiah stella kamden thomas yamilet ross sullivan
madalyn

Part 3 of 20 (25 words)

thomas stella patience yusuf chaya elsie elsie kamden thomas patience dangelo hassan thomas
yamilet madalyn helen chaya tommy patience thomas kamden dangelo thomas skyla ross

Part 4 of 20 (25 words)

stella elsie jasiah yamilet helen thomas corey kamden skyla skyla hassan patience yusuf jasiah
kamden jasiah kamden jeramiah madalyn kamden helen yamilet jeramiah madalyn sullivan

Part 5 of 20 (25 words)

ross tommy sullivan dangelo kaylie dangelo stella stella sullivan yamilet yusuf sullivan yusuf
yamilet jasiah kamden sullivan helen sullivan ross jeramiah kamden skyla jeramiah stella

Part 6 of 20 (25 words)

yusuf jeramiah yamilet patience tommy stella corey yusuf skyla helen elsie stella thomas chaya
sullivan helen stella helen skyla yusuf ross chaya tommy skyla skyla

Part 7 of 20 (25 words)

corey corey jasiah sullivan ross yusuf tommy kamden tommy elsie elsie thomas kaylie corey
dangelo kamden dangelo dangelo skyla jasiah stella kamden kamden tommy thomas

Part 8 of 20 (25 words)

yamilet ross jasiah elsie jasiah patience corey patience jeramiah corey kamden tommy kamden
yusuf stella jasiah tommy jeramiah dangelo kaylie corey yamilet elsie kaylie kaylie

Part 9 of 20 (25 words)

madalyn yamilet corey skyla skyla jasiah jasiah sullivan kaylie stella yusuf kamden stella elsie
tommy stella tommy helen kaylie corey yusuf kamden thomas chaya skyla

Part 10 of 20 (25 words)

elsie elsie stella stella hassan kamden stella jeramiah madalyn chaya dangelo hassan yamilet
jasiah kaylie stella ross jeramiah tommy madalyn kamden yamilet sullivan dangelo corey

Part 11 of 20 (25 words)

elsie hassan jeramiah ross stella elsie jeramiah elsie yusuf thomas tommy sullivan skyla skyla
elsie sullivan stella yamilet kamden ross sullivan sullivan elsie hassan elsie

Part 12 of 20 (25 words)

helen jeramiah kaylie patience helen stella yusuf skyla madalyn jeramiah kamden hassan yusuf
patience tommy stella hassan chaya yusuf chaya patience hassan jasiah yusuf corey

Part 13 of 20 (25 words)

helen thomas kaylie madalyn tommy thomas kamden madalyn tommy hassan kaylie jasiah
tommy dangelo yamilet chaya chaya corey dangelo ross stella jasiah chaya tommy yamilet

Part 14 of 20 (25 words)

hassan thomas ross corey thomas kaylie dangelo thomas kamden patience helen madalyn corey
stella jeramiah jasiah patience skyla helen elsie jeramiah ross thomas jasiah thomas

Part 15 of 20 (25 words)

yusuf skyla yusuf stella jasiah elsie jeramiah yamilet kaylie patience jasiah hassan dangelo
hassan kaylie chaya thomas elsie dangelo yusuf helen patience corey madalyn yamilet

Part 16 of 20 (25 words)

ross yusuf helen sullivan stella tommy tommy dangelo elsie corey kaylie thomas hassan corey
stella thomas skyla yusuf hassan chaya yusuf yamilet sullivan elsie thomas

Part 17 of 20 (25 words)

tommy skyla jasiah stella skyla kamden jeramiah kamden chaya madalyn ross thomas jasiah
skyla jeramiah stella dangelo patience tommy chaya kaylie dangelo yusuf corey stella

Part 18 of 20 (25 words)

sullivan hassan stella corey madalyn skyla ross ross hassan helen ross sullivan corey kaylie
patience jasiah corey chaya helen yusuf kamden elsie elsie tommy helen

Part 19 of 20 (25 words)

tommy thomas chaya tommy tommy chaya tommy helen stella ross helen stella ross dangelo
sullivan dangelo yamilet thomas thomas jasiah patience kamden patience patience skyla

Part 20 of 20 (25 words)

chaya dangelo sullivan ross helen stella jasiah jeramiah helen jasiah sullivan skyla tommy
madalyn thomas tommy patience yamilet thomas ross skyla yamilet jeramiah kaylie elsie