

MapReduce

Classroom example

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

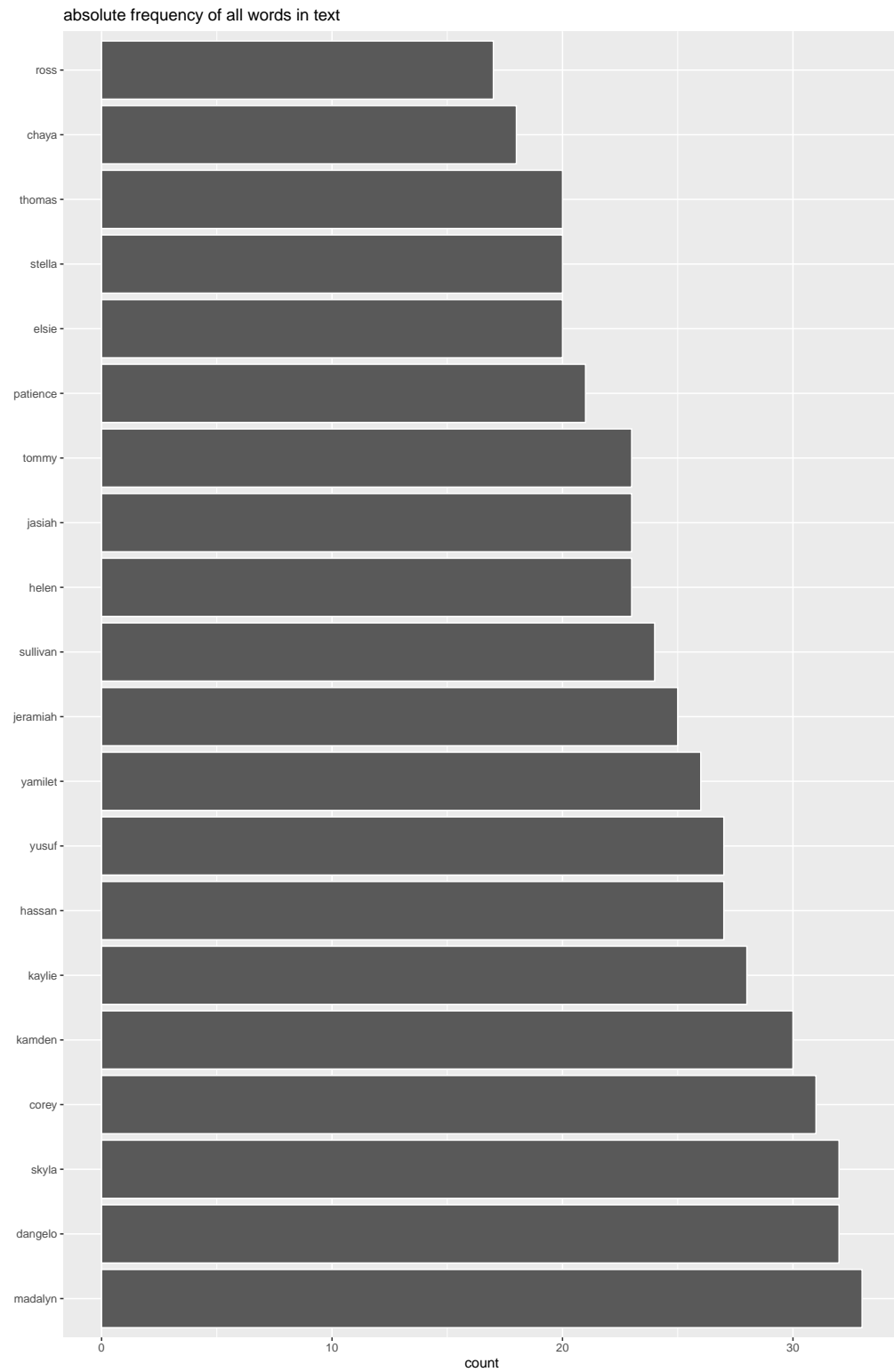
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student 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?

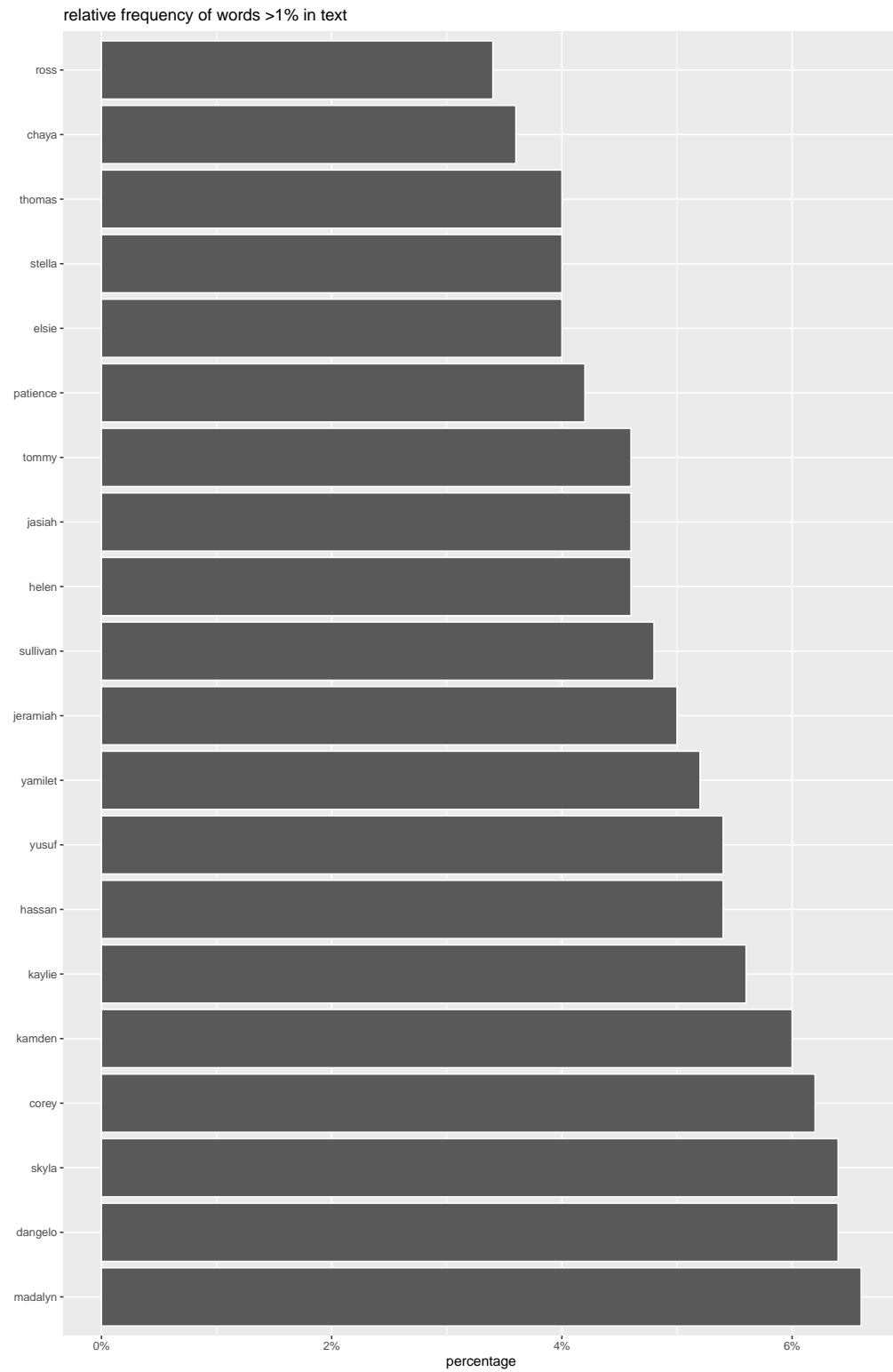
some summary statistics on the raw data

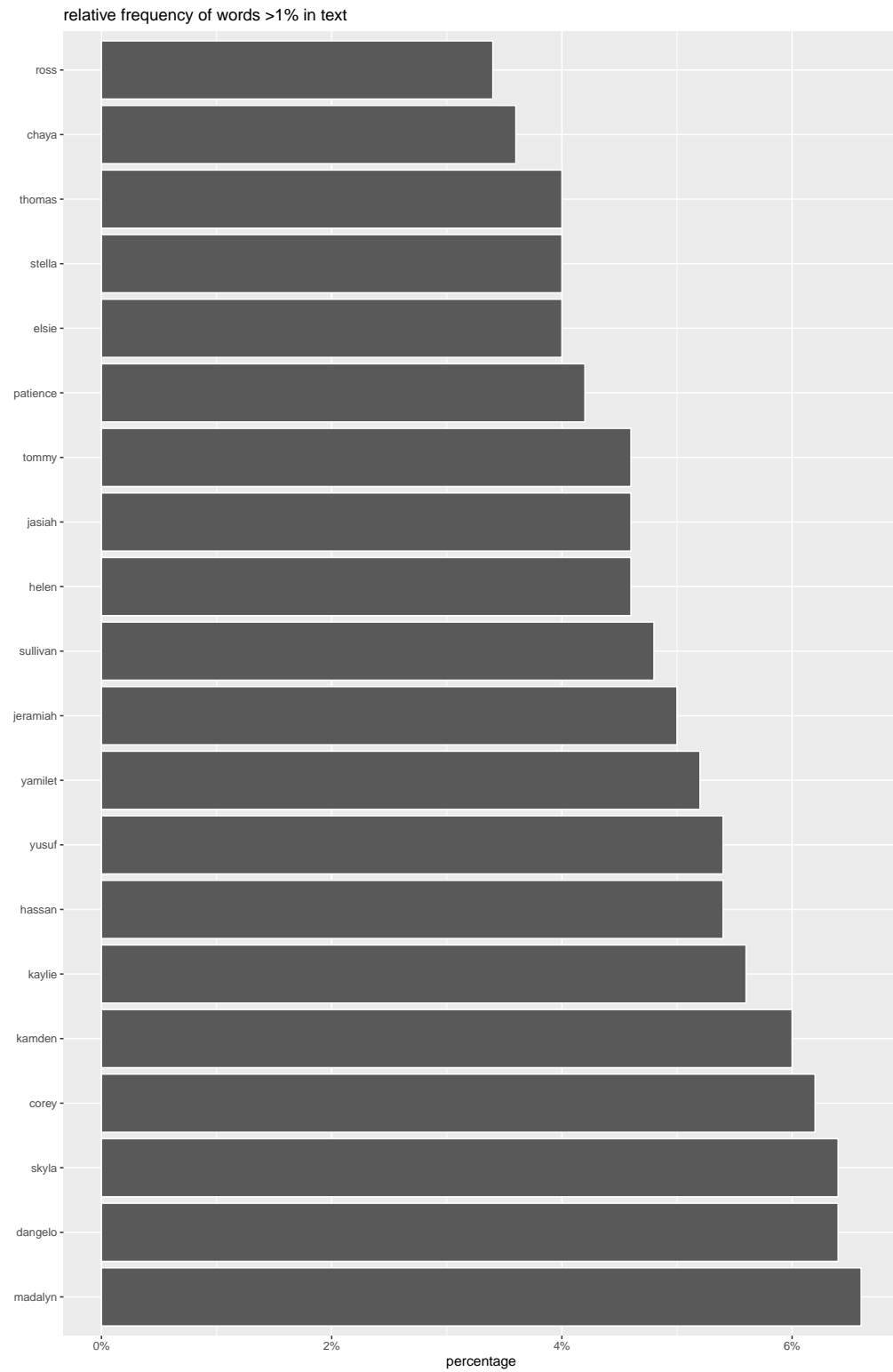
In total there are 500 words available.

words	Freq	percentage	percentage_round
madalyn	33	6.60%	6.60%
dangelo	32	6.40%	6.40%
skyla	32	6.40%	6.40%
corey	31	6.20%	6.20%
kamden	30	6.00%	6.00%
kaylie	28	5.60%	5.60%
hassan	27	5.40%	5.40%
yusuf	27	5.40%	5.40%
yamilet	26	5.20%	5.20%
jeramiah	25	5.00%	5.00%
sullivan	24	4.80%	4.80%
helen	23	4.60%	4.60%

jasiah	23	4.60%	4.60%
tommy	23	4.60%	4.60%
patience	21	4.20%	4.20%
elsie	20	4.00%	4.00%
stella	20	4.00%	4.00%
thomas	20	4.00%	4.00%
chaya	18	3.60%	3.60%
ross	17	3.40%	3.40%







The Raw data 01

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

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

The Raw data 02

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

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

The Raw data 03

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

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

The Raw data 04

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

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

Two Groups

Part 1 of 2 (250 words)

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

Part 2 of 2 (250 words)

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

Four Groups

Part 1 of 4 (125 words)

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

Part 2 of 4 (125 words)

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

Part 3 of 4 (125 words)

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

Part 4 of 4 (125 words)

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

Five Groups

Part 1 of 5 (100 words)

skylar sullivan corey dangelo dangelo hassan kaylie corey chaya kamden dangelo ross corey sullivan yusuf elsie tommy yamilet tommy skylar sullivan hassan sullivan dangelo hassan jariah thomas skylar kaylie stella jeremiah skylar helen corey helen corey dangelo helen yamilet ross jariah helen corey thomas skylar kaylie tommy yusuf sullivan madalyn thomas corey yamilet chaya madalyn jeremiah stella helen elsie kamden yusuf jeremiah skylar elsie hassan hassan dangelo corey yamilet elsie jariah jeremiah yusuf helen helen yamilet sullivan helen dangelo kaylie kamden corey yamilet thomas jariah yusuf madalyn yamilet stella chaya elsie thomas chaya corey jariah dangelo dangelo kaylie chaya stella

Part 2 of 5 (100 words)

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

Part 3 of 5 (100 words)

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

Part 4 of 5 (100 words)

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

Part 5 of 5 (100 words)

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

Ten Groups

Part 1 of 10 (50 words)

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

Part 2 of 10 (50 words)

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

Part 3 of 10 (50 words)

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

Part 4 of 10 (50 words)

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

Part 5 of 10 (50 words)

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

Part 6 of 10 (50 words)

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

Part 7 of 10 (50 words)

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

Part 8 of 10 (50 words)

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

Part 9 of 10 (50 words)

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

Part 10 of 10 (50 words)

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

Twenty Groups

Part 1 of 20 (25 words)

skylar dangelo chaya corey tommy sullivan hassan kaylie helen dangelo jariah skylar sullivan
yamilet stella yusuf hassan yamilet yusuf sullivan kamden jariah stella chaya dangelo

Part 2 of 20 (25 words)

kamden helen madalyn yusuf yamilet patience chaya ross dangelo sullivan hassan jeramiah
sullivan corey elsie yamilet yamilet helen kaylie jeramiah madalyn jasiah patience stella mada-
lyn

Part 3 of 20 (25 words)

kamden thomas skyla sullivan sullivan stella hassan elsie dangelo kamden stella hassan corey
madalyn corey dangelo kamden yamilet madalyn yusuf kamden skyla kaylie kaylie kamden

Part 4 of 20 (25 words)

tommy dangelo skyla ross patience ross dangelo kaylie skyla skyla thomas patience tommy
helen elsie dangelo kamden corey tommy chaya kaylie chaya helen tommy kamden

Part 5 of 20 (25 words)

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

Part 6 of 20 (25 words)

sullivan hassan kamden sullivan yamilet hassan jasiah stella corey helen helen kaylie madalyn
chaya helen jeramiah hassan elsie helen helen corey yusuf chaya corey kaylie

Part 7 of 20 (25 words)

helen madalyn madalyn yamilet yusuf madalyn madalyn kamden sullivan dangelo ross hassan kamden hassan hassan thomas jeramiah dangelo stella stella yusuf skyla sullivan stella madalyn

Part 8 of 20 (25 words)

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

Part 9 of 20 (25 words)

chaya yusuf hassan jeramiah madalyn stella jeramiah jeramiah thomas stella chaya chaya skyla
helen corey ross yamilet corey jeramiah patience ross madalyn sullivan thomas kamden

Part 10 of 20 (25 words)

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

Part 11 of 20 (25 words)

corey kaylie dangelo yusuf tommy sullivan thomas jeramiah helen yamilet corey tommy thomas
madalyn elsie skyla dangelo jasiah helen dangelo yamilet madalyn elsie jasiah chaya

Part 12 of 20 (25 words)

dangelo helen yamilet madalyn tommy yamilet sullivan helen corey hassan hassan skyla hassan
yusuf madalyn jeramiah sullivan jeramiah corey jasiah jasiah elsie helen thomas stella

Part 13 of 20 (25 words)

madalyn kamden corey skyla skyla jeramiah kamden yusuf madalyn dangelo dangelo kaylie
kaylie thomas kamden skyla elsie kaylie elsie tommy skyla tommy yamilet corey chaya

Part 14 of 20 (25 words)

yusuf dangelo thomas elsie kamden tommy madalyn corey kaylie skyla elsie hassan jasiah
patience kamden madalyn madalyn thomas elsie sullivan corey kamden ross yusuf kamden

Part 15 of 20 (25 words)

tommy skyla hassan yamilet thomas ross hassan jeramiah patience madalyn patience jasiah
yusuf stella ross yamilet madalyn jeramiah jeramiah jasiah tommy stella dangelo sullivan
ross

Part 16 of 20 (25 words)

dangelo corey ross elsie skyla dangelo skyla skyla corey ross thomas yusuf corey jeramiah
kamden elsie corey jeramiah yamilet kaylie thomas yamilet thomas dangelo stella

Part 17 of 20 (25 words)

kaylie corey hassan yusuf patience jasiah stella jeramiah patience tommy skyla jasiah yusuf
madalyn skyla hassan sullivan ross skyla yusuf yusuf dangelo yamilet tommy jasiah

Part 18 of 20 (25 words)

hassan skyla thomas kamden yusuf yusuf kaylie yamilet yamilet yamilet skyla corey patience
chaya patience jasiah sullivan kamden yusuf kamden kamden jasiah jeramiah helen yusuf

Part 19 of 20 (25 words)

dangelo madalyn madalyn jasiah kamden kaylie chaya elsie kaylie patience helen patience
jasiah skyla jeramiah skyla corey sullivan corey skyla ross chaya dangelo jeramiah kaylie

Part 20 of 20 (25 words)

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