

MapReduce

Classroom example

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

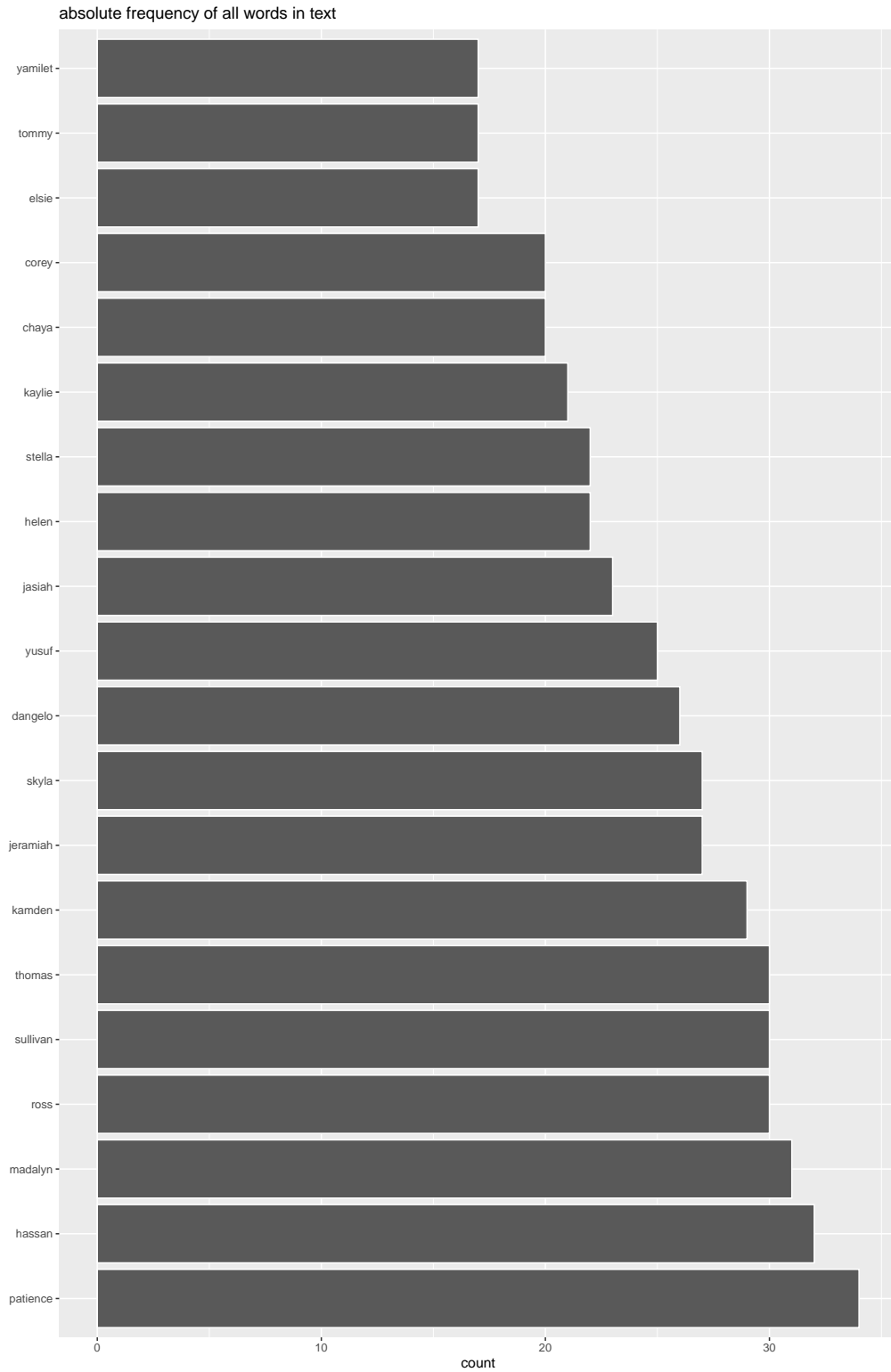
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student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

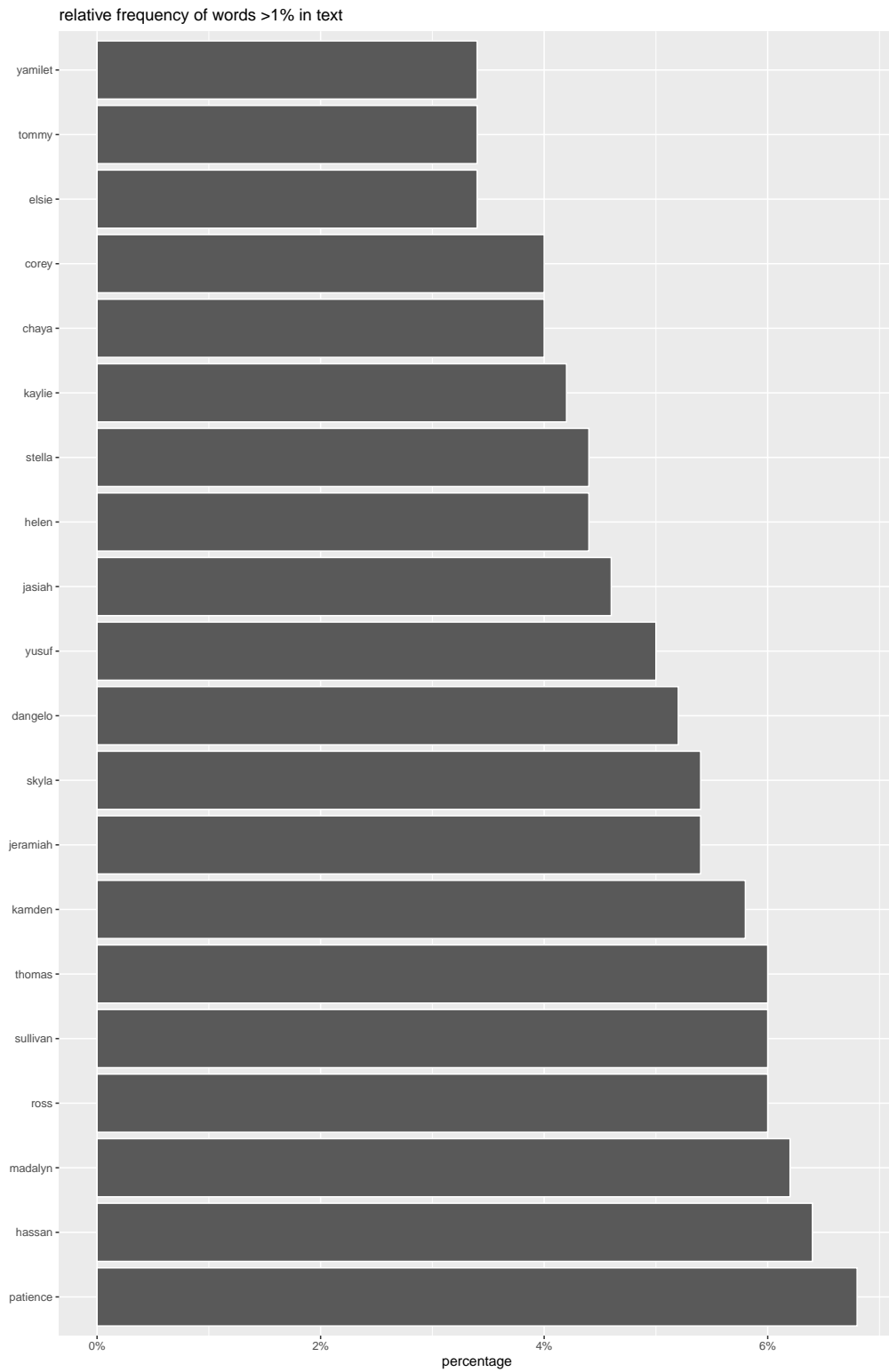
some summary statistics on the raw data

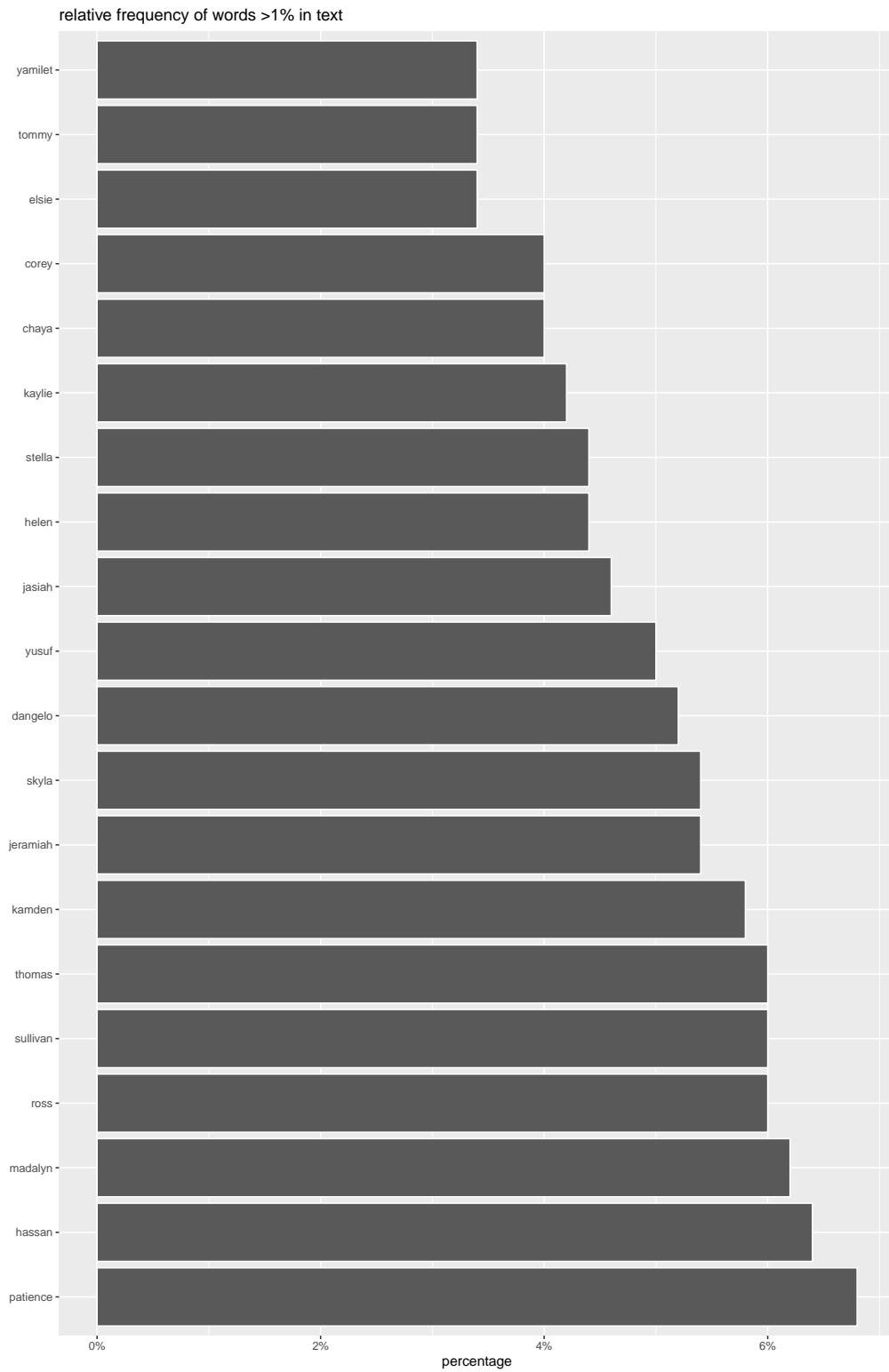
In total there are 500 words available.

words	Freq	percentage	percentage_round
patience	34	6.80%	6.80%
hassan	32	6.40%	6.40%
madalyn	31	6.20%	6.20%
ross	30	6.00%	6.00%
sullivan	30	6.00%	6.00%
thomas	30	6.00%	6.00%
kamden	29	5.80%	5.80%
jeramiah	27	5.40%	5.40%
skyla	27	5.40%	5.40%
dangelo	26	5.20%	5.20%
yusuf	25	5.00%	5.00%
jasiah	23	4.60%	4.60%

helen	22	4.40%	4.40%
stella	22	4.40%	4.40%
kaylie	21	4.20%	4.20%
chaya	20	4.00%	4.00%
corey	20	4.00%	4.00%
elsie	17	3.40%	3.40%
tommy	17	3.40%	3.40%
yamilet	17	3.40%	3.40%







The Raw data 01

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

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

The Raw data 02

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

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

The Raw data 03

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

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

The Raw data 04

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

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

Two Groups

Part 1 of 2 (250 words)

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

Part 2 of 2 (250 words)

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

Four Groups

Part 1 of 4 (125 words)

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

Part 2 of 4 (125 words)

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

Part 3 of 4 (125 words)

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

Part 4 of 4 (125 words)

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

Five Groups

Part 1 of 5 (100 words)

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

Part 2 of 5 (100 words)

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

Part 3 of 5 (100 words)

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

Part 4 of 5 (100 words)

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

Part 5 of 5 (100 words)

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

Ten Groups

Part 1 of 10 (50 words)

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

Part 2 of 10 (50 words)

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

Part 3 of 10 (50 words)

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

Part 4 of 10 (50 words)

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

Part 5 of 10 (50 words)

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

Part 6 of 10 (50 words)

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

Part 7 of 10 (50 words)

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

Part 8 of 10 (50 words)

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

Part 9 of 10 (50 words)

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

Part 10 of 10 (50 words)

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

Twenty Groups

Part 1 of 20 (25 words)

chaya kamden jeramiah corey thomas madalyn yusuf thomas skyla jasiah sullivan thomas
sullivan ross yamilet tommy chaya hassan yusuf yamilet dangelo thomas hassan ross thomas

Part 2 of 20 (25 words)

madalyn jeramiah thomas corey kamden thomas ross helen skyla jeramiah kamden jeramiah
yusuf helen ross hassan skyla ross ross skyla tommy corey patience yusuf dangelo

Part 3 of 20 (25 words)

helen elsie dangelo corey ross helen stella yamilet helen kamden thomas sullivan thomas ross
patience stella jasiah patience jasiah helen ross elsie madalyn dangelo elsie

Part 4 of 20 (25 words)

jeramiah chaya skyla madalyn patience yusuf madalyn chaya elsie hassan patience helen chaya
hassan helen helen skyla kamden stella hassan helen hassan ross kaylie dangelo

Part 5 of 20 (25 words)

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

Part 6 of 20 (25 words)

ross dangelo jeramiah corey hassan corey jasiah thomas madalyn yusuf dangelo jasiah helen
patience kamden tommy thomas patience ross patience yusuf jasiah madalyn madalyn kaylie

Part 7 of 20 (25 words)

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

Part 8 of 20 (25 words)

helen elsie dangelo sullivan hassan madalyn jeramiah yusuf kaylie patience thomas dangelo
dangelo sullivan kamden kaylie madalyn kamden yamilet patience sullivan sullivan yamilet
thomas sullivan

Part 9 of 20 (25 words)

jeramiah kamden yusuf madalyn elsie helen patience hassan sullivan madalyn sullivan kaylie
chaya jasiah hassan elsie skyla tommy yusuf patience kaylie sullivan jasiah yusuf hassan

Part 10 of 20 (25 words)

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

Part 11 of 20 (25 words)

chaya dangelo corey thomas stella madalyn dangelo thomas ross ross corey sullivan ross patience jeramiah chaya tommy helen jasiah kamden helen corey jeramiah yamilet patience

Part 12 of 20 (25 words)

tommy hassan hassan patience tommy hassan madalyn helen sullivan skyla ross jeramiah yusuf
elsie patience corey elsie jeramiah skyla jeramiah yusuf dangelo kamden madalyn jariah

Part 13 of 20 (25 words)

hassan helen corey chaya corey chaya stella kamden skyla kamden kamden elsie madalyn stella
kamden madalyn thomas kaylie skyla patience hassan yusuf yusuf tommy stella

Part 14 of 20 (25 words)

elsie jasiah skyla dangelo patience stella tommy hassan tommy kaylie chaya sullivan kamden
dangelo stella tommy corey chaya patience patience stella jeramiah sullivan dangelo ross

Part 15 of 20 (25 words)

elsie thomas yamilet patience kamden hassan kamden tommy thomas patience sullivan patience
ross sullivan jeramiah dangelo stella sullivan kaylie ross jasiah madalyn jasiah kamden kaylie

Part 16 of 20 (25 words)

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

Part 17 of 20 (25 words)

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

Part 18 of 20 (25 words)

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

Part 19 of 20 (25 words)

yusuf ross jasiah dangelo skyla sullivan skyla hassan stella kaylie jasiah stella hassan elsie
jasiah yamilet stella madalyn hassan hassan hassan dangelo thomas yamilet stella

Part 20 of 20 (25 words)

jeramiah thomas jasiah kamden kamden sullivan madalyn jasiah jasiah skyla tommy sullivan
skyla sullivan sullivan jeramiah hassan thomas madalyn elsie sullivan corey jeramiah stella
stella