

MapReduce

Classroom example

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

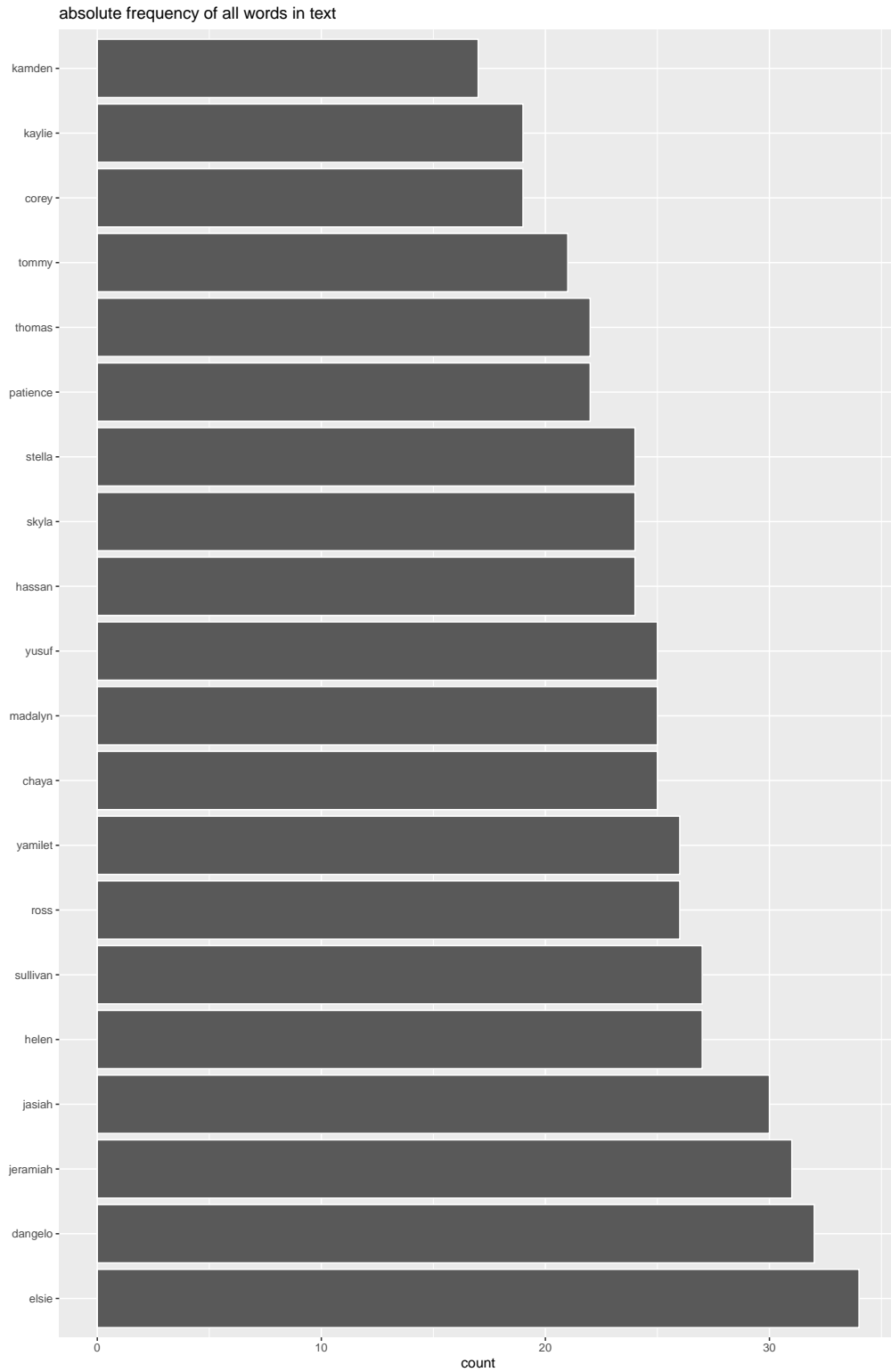
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student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

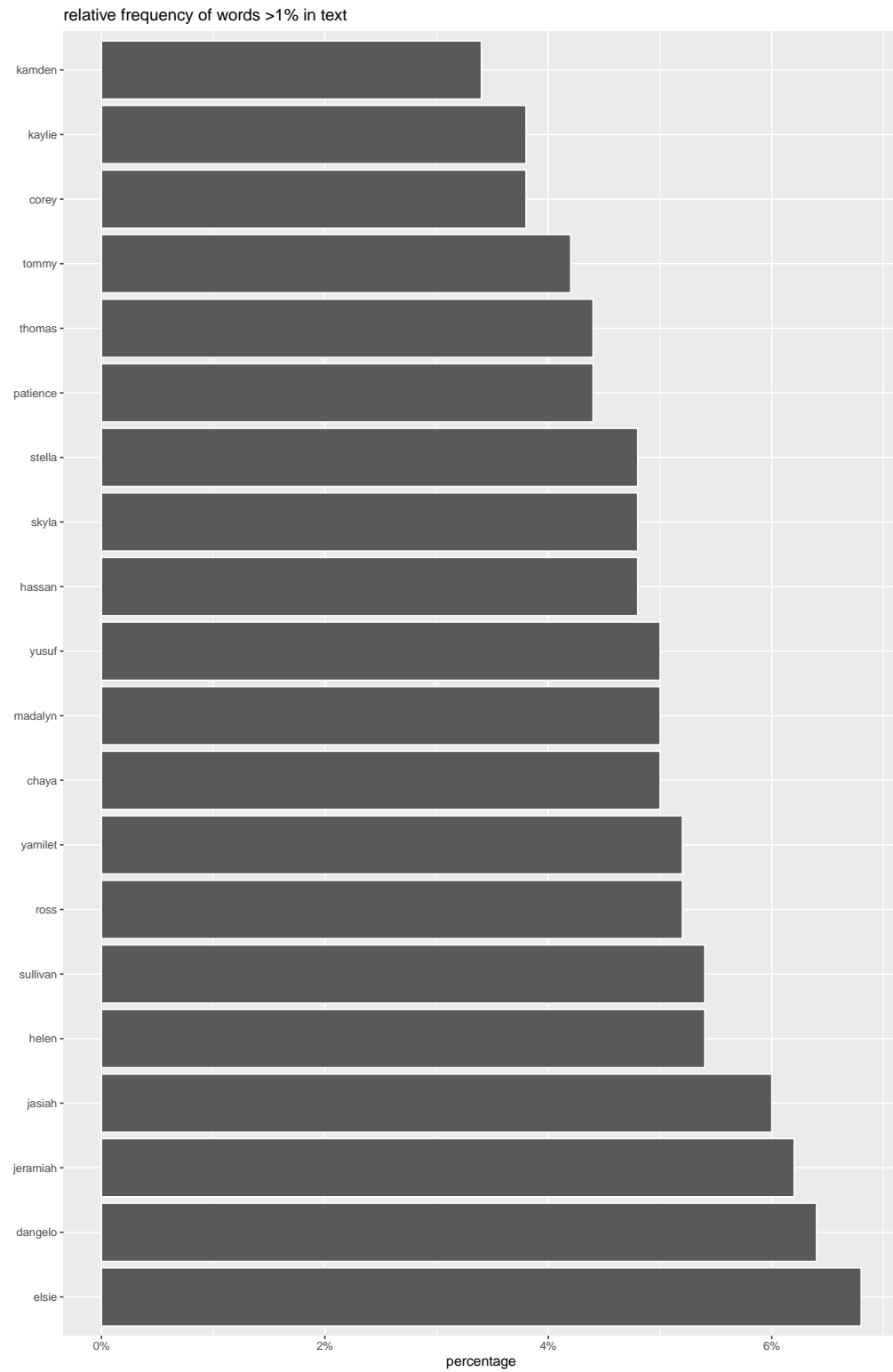
some summary statistics on the raw data

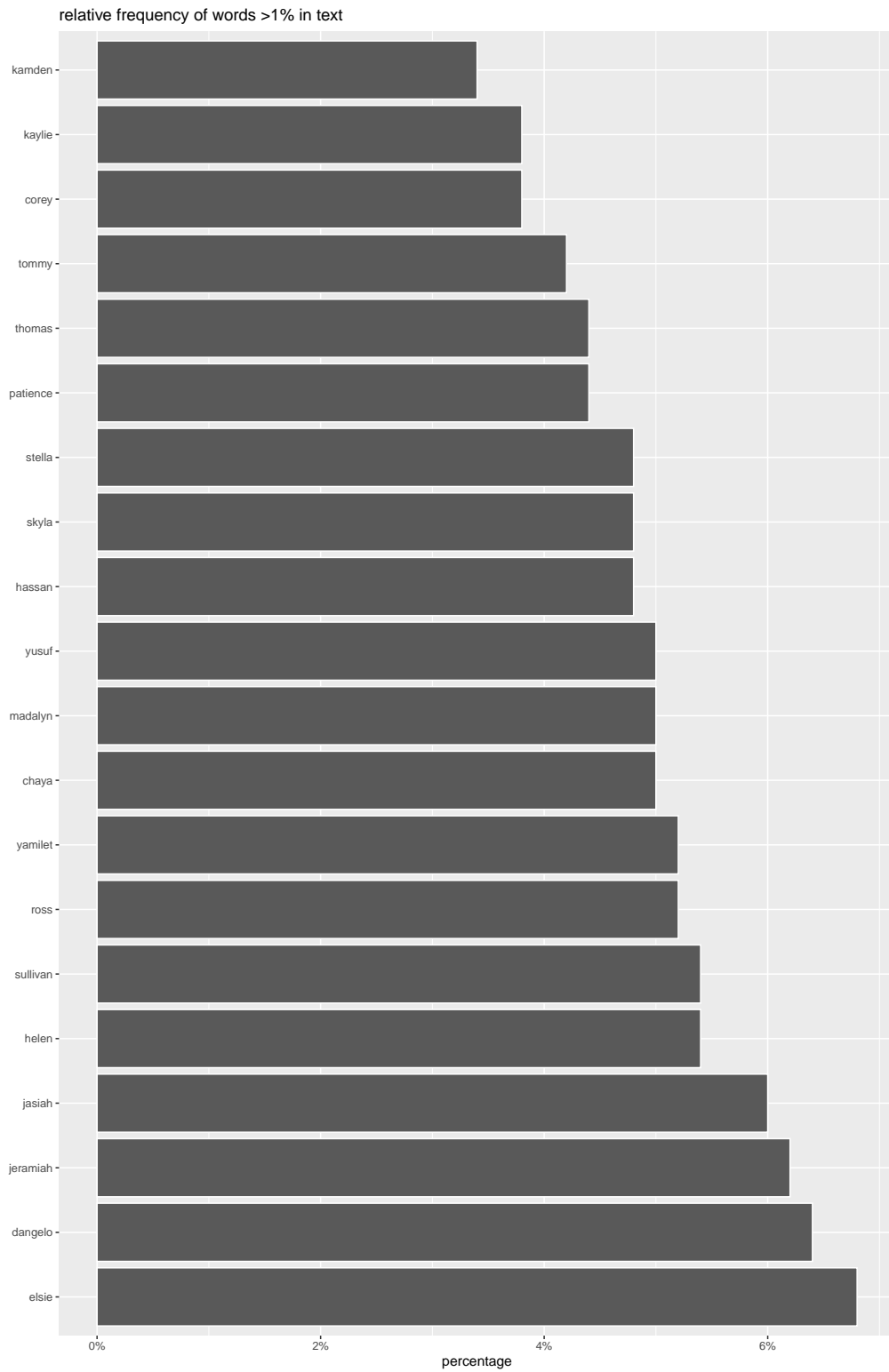
In total there are 500 words available.

words	Freq	percentage	percentage_round
elsie	34	6.80%	6.80%
dangelo	32	6.40%	6.40%
jeramiah	31	6.20%	6.20%
jasiah	30	6.00%	6.00%
helen	27	5.40%	5.40%
sullivan	27	5.40%	5.40%
ross	26	5.20%	5.20%
yamilet	26	5.20%	5.20%
chaya	25	5.00%	5.00%
madalyn	25	5.00%	5.00%
yusuf	25	5.00%	5.00%
hassan	24	4.80%	4.80%

skyla	24	4.80%	4.80%
stella	24	4.80%	4.80%
patience	22	4.40%	4.40%
thomas	22	4.40%	4.40%
tommy	21	4.20%	4.20%
corey	19	3.80%	3.80%
kaylie	19	3.80%	3.80%
kamden	17	3.40%	3.40%







The Raw data 01

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

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

The Raw data 02

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

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

The Raw data 03

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

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

The Raw data 04

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

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

Two Groups

Part 1 of 2 (250 words)

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

Part 2 of 2 (250 words)

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

Four Groups

Part 1 of 4 (125 words)

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

Part 2 of 4 (125 words)

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

Part 3 of 4 (125 words)

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

Part 4 of 4 (125 words)

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

Five Groups

Part 1 of 5 (100 words)

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

Part 2 of 5 (100 words)

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

Part 3 of 5 (100 words)

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

Part 4 of 5 (100 words)

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

Part 5 of 5 (100 words)

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

Ten Groups

Part 1 of 10 (50 words)

yusuf jeramiah madalyn thomas patience chaya sullivan stella jeramiah thomas ross patience
sullivan ross hassan stella thomas dangelo jasiah jeramiah madalyn kamden kaylie elsie hassan
thomas yamilet dangelo hassan madalyn kamden yusuf ross yamilet helen ross madalyn kam-
den corey hassan kamden ross yamilet madalyn jasiah patience patience yusuf chaya helen

Part 2 of 10 (50 words)

chaya ross elsie corey madalyn stella jeramiah patience stella madalyn yamilet elsie jasiah
stella yusuf madalyn chaya madalyn chaya yusuf skyla sullivan stella kaylie elsie skyla jasiah
kaylie corey yamilet yamilet yusuf kaylie jasiah stella skyla jasiah dangelo jeramiah madalyn
jasiah dangelo corey sullivan jasiah chaya chaya corey chaya corey

Part 3 of 10 (50 words)

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

Part 4 of 10 (50 words)

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

Part 5 of 10 (50 words)

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

Part 6 of 10 (50 words)

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

Part 7 of 10 (50 words)

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

Part 8 of 10 (50 words)

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

Part 9 of 10 (50 words)

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

Part 10 of 10 (50 words)

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

Twenty Groups

Part 1 of 20 (25 words)

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

Part 2 of 20 (25 words)

chaya elsie madalyn jeramiah stella yamilet jasiah yusuf chaya chaya skyla stella elsie jasiah
corey yamilet kaylie stella jasiah jeramiah jasiah corey jasiah chaya chaya

Part 3 of 20 (25 words)

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

Part 4 of 20 (25 words)

dangelo ross hassan thomas ross skyla helen patience helen dangelo chaya chaya jeramiah corey
jeramiah tommy kamden sullivan helen skyla sullivan sullivan hassan patience chaya

Part 5 of 20 (25 words)

elsie dangelo jeramiah elsie yamilet jeramiah skyla kaylie corey helen dangelo dangelo yusuf
yamilet yusuf tommy jeramiah stella ross jeramiah stella dangelo corey skyla madalyn

Part 6 of 20 (25 words)

jeramiah chaya helen dangelo corey helen corey jasiah tommy corey yusuf elsie skyla helen
helen jasiah skyla chaya yusuf dangelo corey patience helen elsie tommy

Part 7 of 20 (25 words)

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

Part 8 of 20 (25 words)

tommy jasiah chaya yusuf elsie skyla kaylie helen chaya elsie yamilet stella jeramiah corey elsie
jasiah yamilet ross elsie elsie skyla dangelo yamilet jasiah jasiah

Part 9 of 20 (25 words)

elsie dangelo stella elsie madalyn madalyn hassan hassan hassan kamden stella sullivan jasiah
dangelo patience sullivan patience jeramiah jasiah sullivan tommy skyla dangelo stella pa-
tience

Part 10 of 20 (25 words)

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

Part 11 of 20 (25 words)

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

Part 12 of 20 (25 words)

ross corey stella patience madalyn elsie stella madalyn madalyn yusuf sullivan kaylie skyla
kaylie yamilet yusuf jasiah skyla dangelo madalyn dangelo sullivan chaya corey corey

Part 13 of 20 (25 words)

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

Part 14 of 20 (25 words)

skyla kamden yusuf tommy ross dangelo madalyn ross madalyn skyla kaylie elsie elsie hassan
dangelo jeramiah yusuf ross madalyn yamilet tommy corey hassan yusuf dangelo

Part 15 of 20 (25 words)

jeramiah jeramiah elsie thomas thomas jeramiah dangelo kaylie jasiah tommy helen jasiah
patience kaylie stella ross chaya sullivan kamden patience thomas thomas kamden kamden
elsie

Part 16 of 20 (25 words)

chaya sullivan sullivan patience hassan ross sullivan chaya yamilet corey patience jasiah
jeramiah patience jasiah tommy ross jasiah chaya helen stella skyla yamilet skyla kaylie

Part 17 of 20 (25 words)

yamilet hassan sullivan elsie corey hassan yusuf helen dangelo jasia helen chaya yamilet
madalyn hassan hassan patience yusuf jeramiah ross thomas sullivan kamden jeramiah yusuf

Part 18 of 20 (25 words)

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

Part 19 of 20 (25 words)

jeramiah kamden ross yamilet ross sullivan kamden yamilet yusuf elsie ross sullivan stella elsie
hassan sullivan helen jeramiah helen madalyn stella madalyn kaylie tommy thomas

Part 20 of 20 (25 words)

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