

MapReduce

Classroom example

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

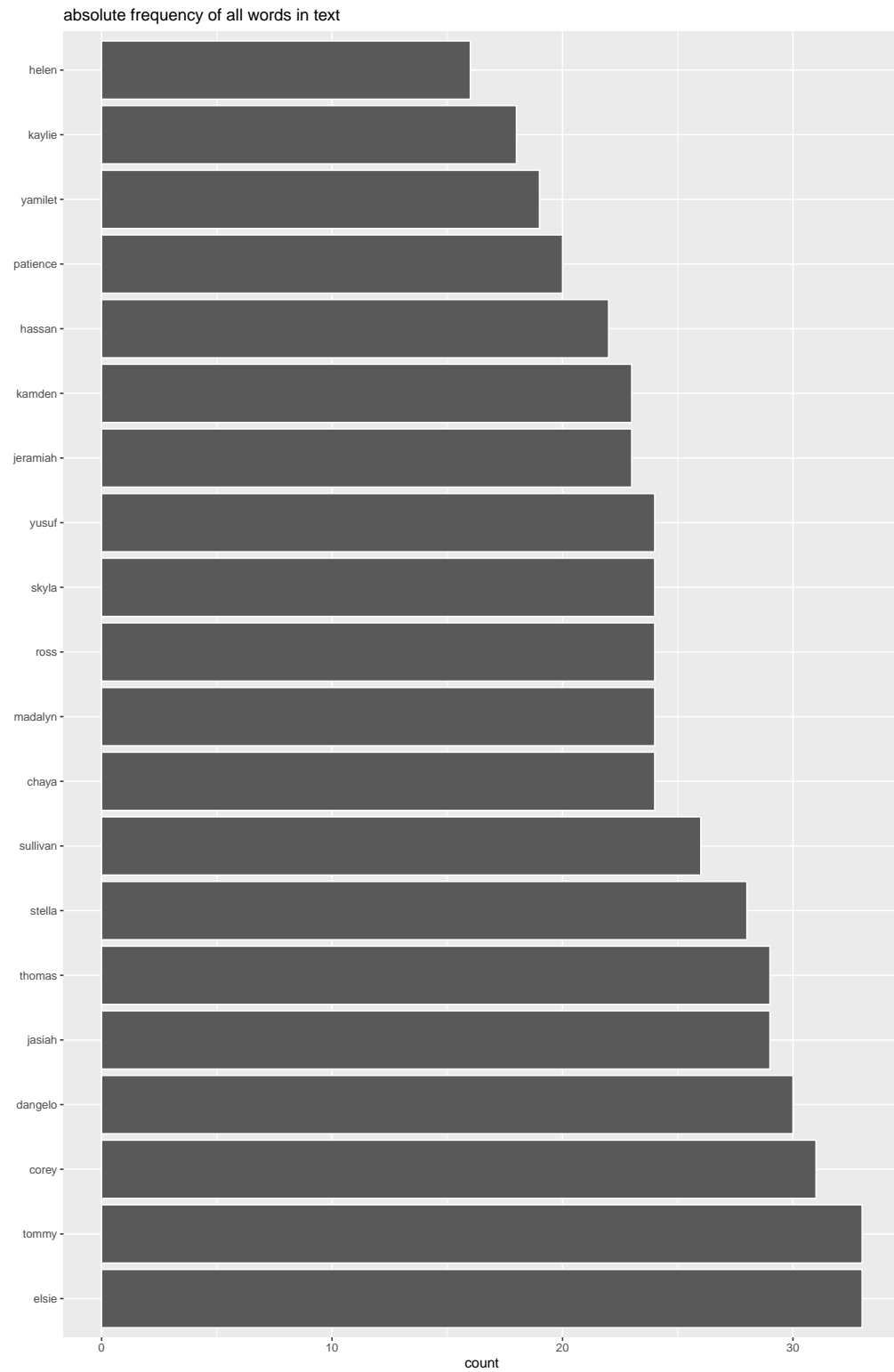
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student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

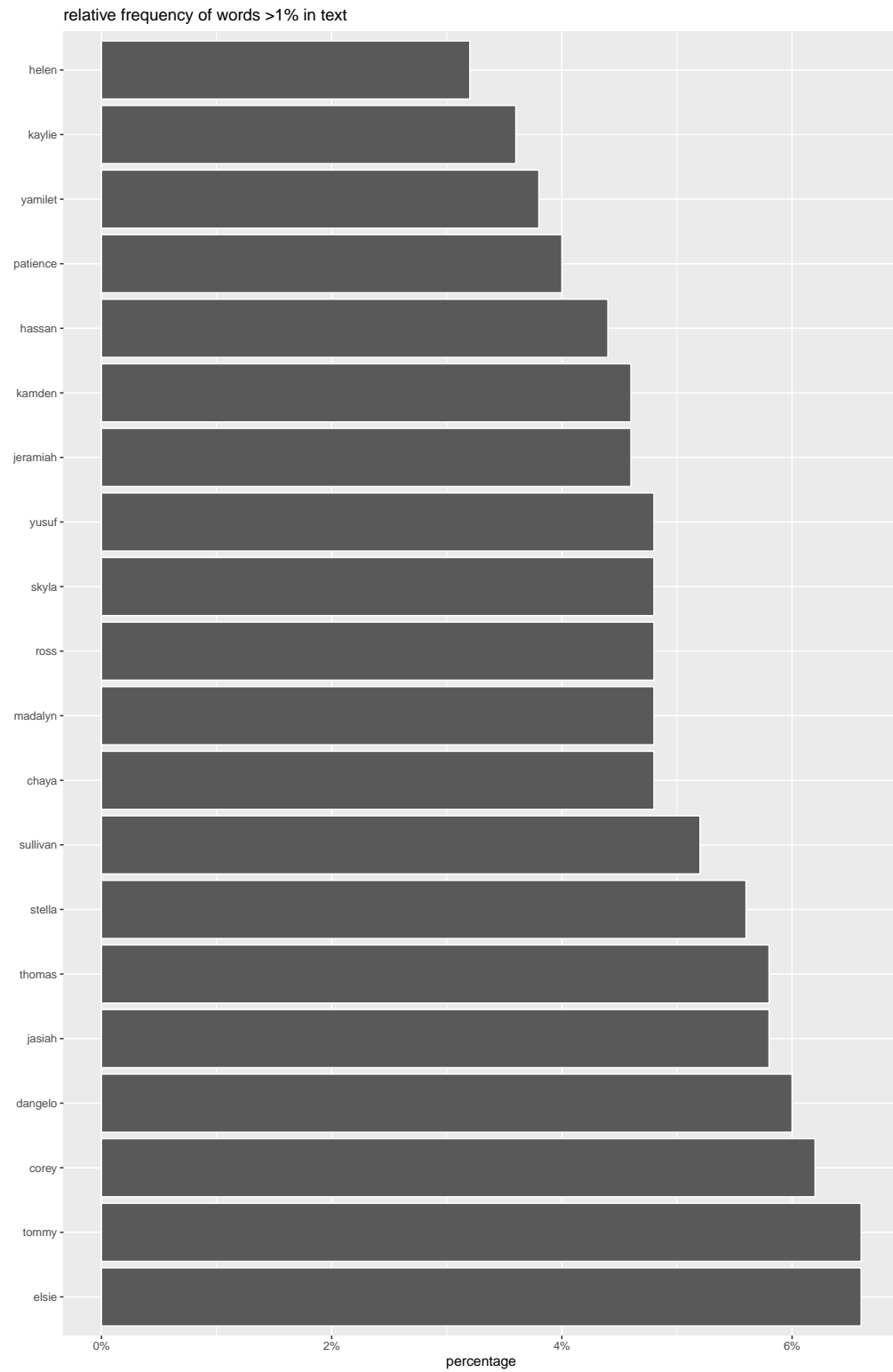
some summary statistics on the raw data

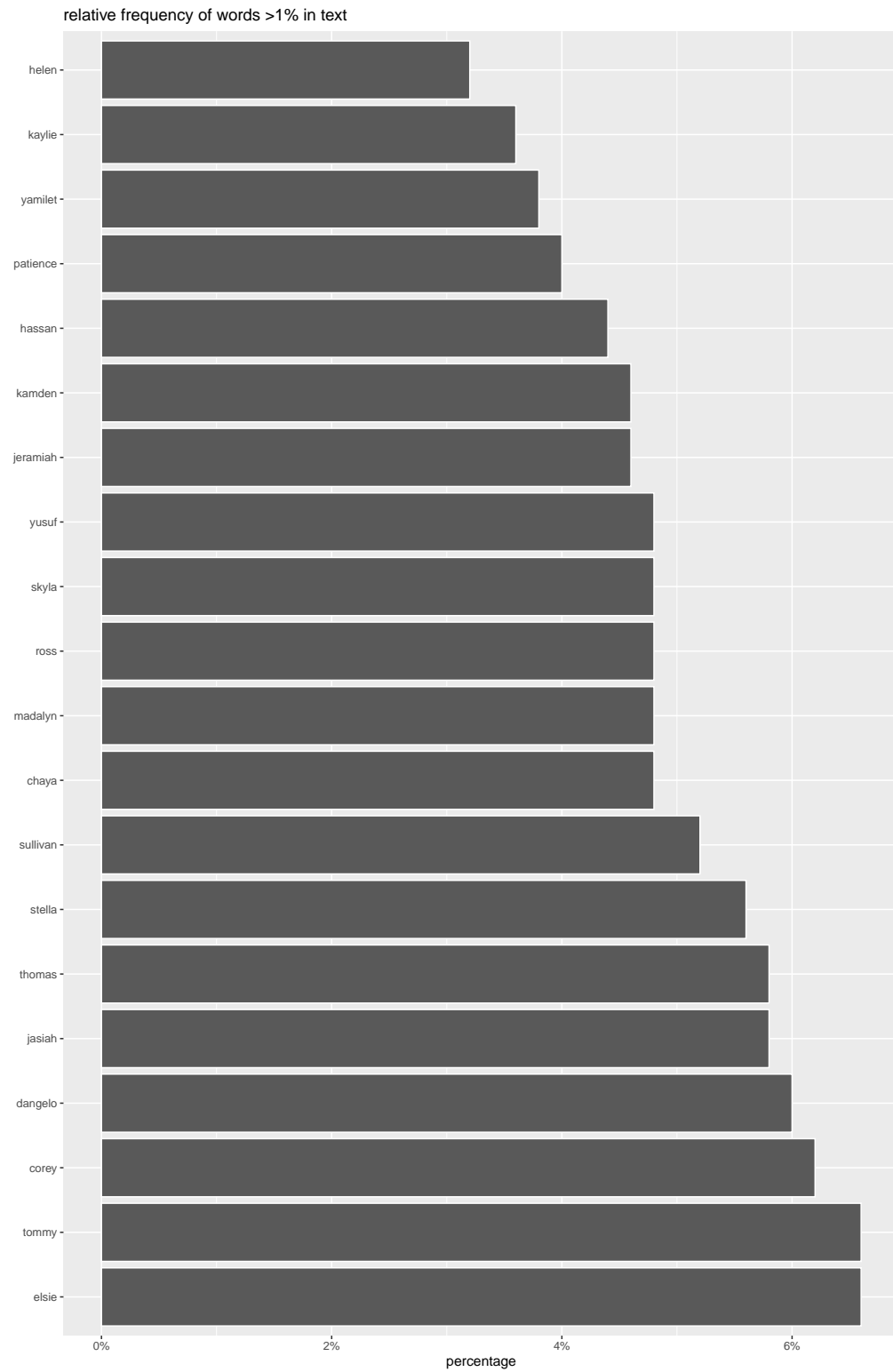
In total there are 500 words available.

words	Freq	percentage	percentage_round
elsie	33	6.60%	6.60%
tommy	33	6.60%	6.60%
corey	31	6.20%	6.20%
dangelo	30	6.00%	6.00%
jasiah	29	5.80%	5.80%
thomas	29	5.80%	5.80%
stella	28	5.60%	5.60%
sullivan	26	5.20%	5.20%
chaya	24	4.80%	4.80%
madalyn	24	4.80%	4.80%
ross	24	4.80%	4.80%
skylar	24	4.80%	4.80%

yusuf	24	4.80%	4.80%
jeramiah	23	4.60%	4.60%
kamden	23	4.60%	4.60%
hassan	22	4.40%	4.40%
patience	20	4.00%	4.00%
yamilet	19	3.80%	3.80%
kaylie	18	3.60%	3.60%
helen	16	3.20%	3.20%







The Raw data 01

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

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

The Raw data 02

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

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

The Raw data 03

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

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

The Raw data 04

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

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

Two Groups

Part 1 of 2 (250 words)

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

Part 2 of 2 (250 words)

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

Four Groups

Part 1 of 4 (125 words)

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

Part 2 of 4 (125 words)

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

Part 3 of 4 (125 words)

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

Part 4 of 4 (125 words)

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

Five Groups

Part 1 of 5 (100 words)

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

Part 2 of 5 (100 words)

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

Part 3 of 5 (100 words)

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

Part 4 of 5 (100 words)

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

Part 5 of 5 (100 words)

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

Ten Groups

Part 1 of 10 (50 words)

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

Part 2 of 10 (50 words)

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

Part 3 of 10 (50 words)

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

Part 4 of 10 (50 words)

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

Part 5 of 10 (50 words)

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

Part 6 of 10 (50 words)

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

Part 7 of 10 (50 words)

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

Part 8 of 10 (50 words)

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

Part 9 of 10 (50 words)

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

Part 10 of 10 (50 words)

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

Twenty Groups

Part 1 of 20 (25 words)

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

Part 2 of 20 (25 words)

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

Part 3 of 20 (25 words)

thomas kaylie chaya elsie yusuf dangelo helen kaylie dangelo jeramiah sullivan ross corey chaya
patience yusuf ross jasiah chaya yusuf jasiah kaylie thomas elsie tommy

Part 4 of 20 (25 words)

skylar thomas yamilet dangelo thomas hassan jariah tommy kamden jeremiah elsie elsie elsie
jeremiah ross tommy jariah stella tommy stella kaylie elsie sullivan dangelo thomas

Part 5 of 20 (25 words)

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

Part 6 of 20 (25 words)

jeramiah sullivan elsie stella jasiah elsie patience kaylie jeramiah ross patience stella ross helen
chaya jeramiah skyla patience elsie elsie jeramiah kaylie jeramiah elsie corey

Part 7 of 20 (25 words)

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

Part 8 of 20 (25 words)

jasiah yusuf kaylie madalyn tommy jasiah skyla madalyn helen dangelo stella dangelo helen
elsie thomas dangelo thomas dangelo dangelo skyla madalyn madalyn skyla sullivan skyla

Part 9 of 20 (25 words)

yamilet chaya stella jeramiah hassan stella thomas jasiah chaya elsie elsie yusuf yamilet patience elsie skyla jeramiah yamilet kamden yamilet thomas jasiah skyla yusuf corey

Part 10 of 20 (25 words)

jasiah elsie corey sullivan yusuf jasiah dangelo tommy hassan sullivan stella yusuf jasiah mada-
lyn corey thomas hassan helen patience tommy corey sullivan corey kamden jasiah

Part 11 of 20 (25 words)

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

Part 12 of 20 (25 words)

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

Part 13 of 20 (25 words)

elsie stella thomas corey stella corey helen skyla yamilet stella stella jasiah kamden helen
jeramiah tommy dangelo tommy skyla tommy jasiah hassan yamilet hassan jasiah

Part 14 of 20 (25 words)

corey patience dangelo jariah thomas stella ross tommy sullivan madalyn ross madalyn dangelo
helen yamilet dangelo tommy skyla chaya kaylie madalyn ross sullivan chaya ross

Part 15 of 20 (25 words)

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

Part 16 of 20 (25 words)

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

Part 17 of 20 (25 words)

corey tommy tommy sullivan madalyn thomas thomas helen thomas ross chaya dangelo mada-
lyn ross jasiah dangelo chaya corey ross elsie dangelo chaya jasiah sullivan kamden

Part 18 of 20 (25 words)

yamilet corey sullivan yusuf hassan hassan corey patience dangelo kamden patience stella
kamden jeramiah jasiah patience helen yusuf yusuf kamden yusuf stella madalyn madalyn
chaya

Part 19 of 20 (25 words)

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

Part 20 of 20 (25 words)

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