

MapReduce

Classroom example

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

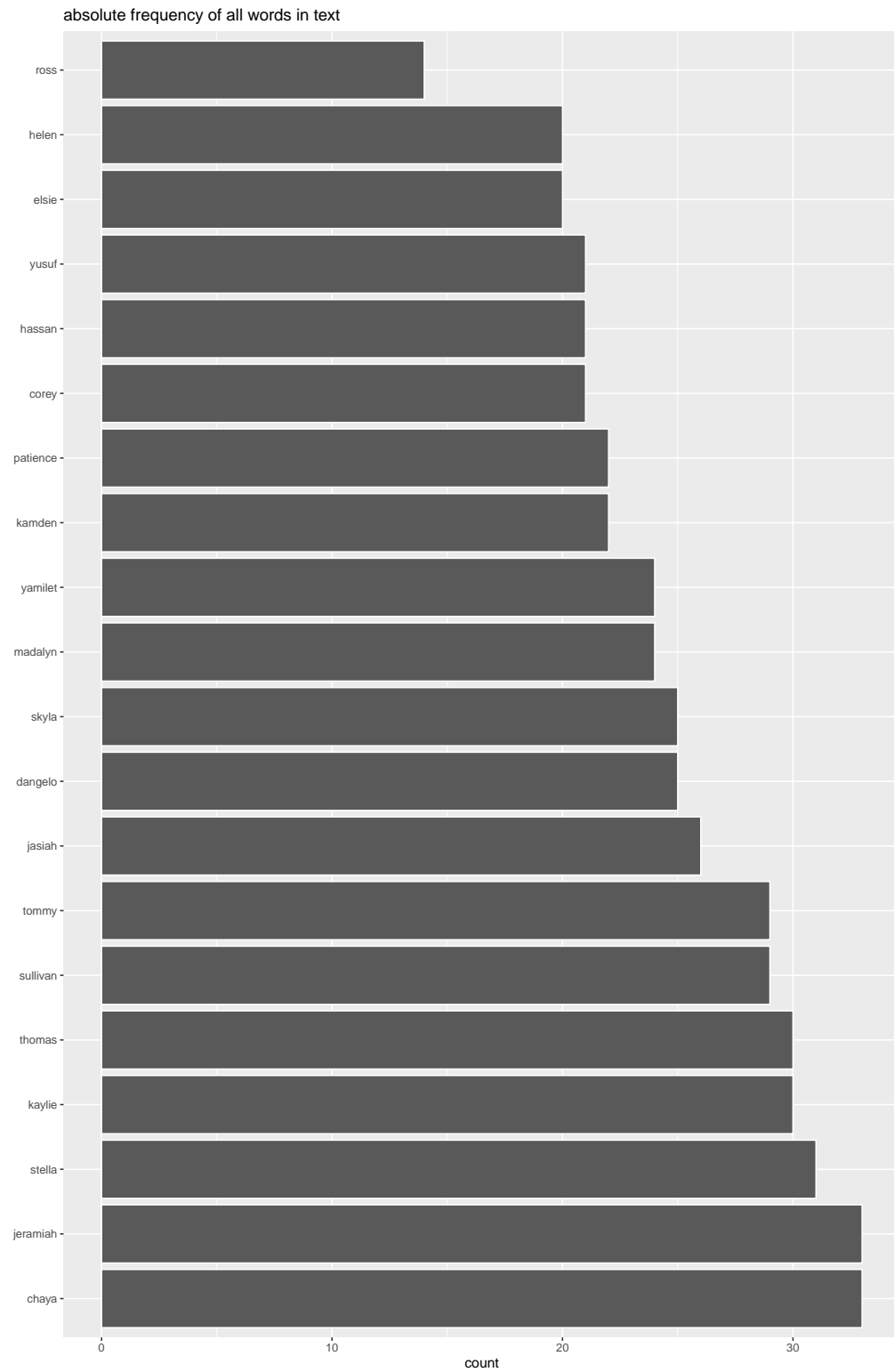
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student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

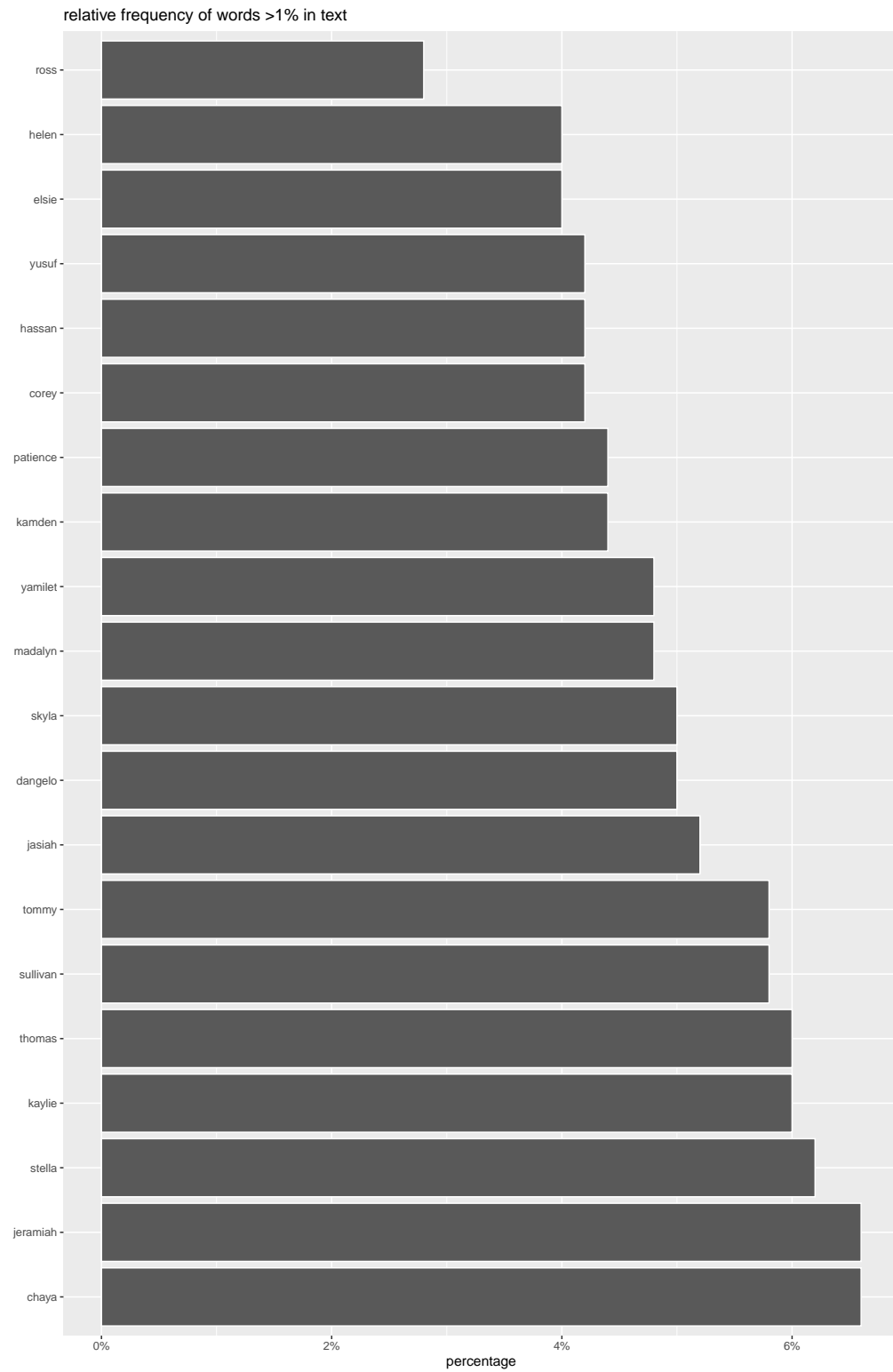
some summary statistics on the raw data

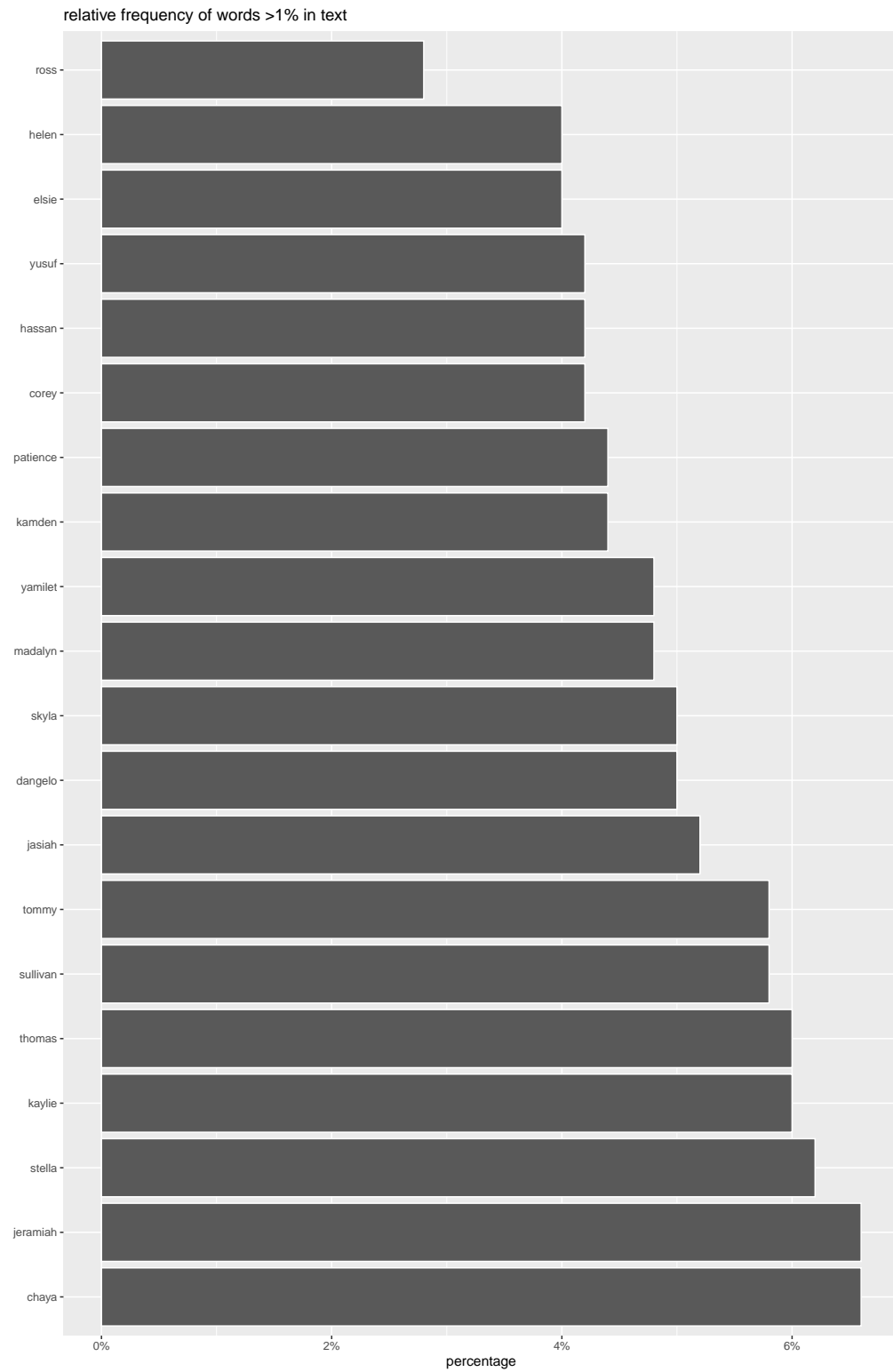
In total there are 500 words available.

words	Freq	percentage	percentage_round
chaya	33	6.60%	6.60%
jeramiah	33	6.60%	6.60%
stella	31	6.20%	6.20%
kaylie	30	6.00%	6.00%
thomas	30	6.00%	6.00%
sullivan	29	5.80%	5.80%
tommy	29	5.80%	5.80%
jasiah	26	5.20%	5.20%
dangelo	25	5.00%	5.00%
skyla	25	5.00%	5.00%
madalyn	24	4.80%	4.80%
yamilet	24	4.80%	4.80%

kamden	22	4.40%	4.40%
patience	22	4.40%	4.40%
corey	21	4.20%	4.20%
hassan	21	4.20%	4.20%
yusuf	21	4.20%	4.20%
elsie	20	4.00%	4.00%
helen	20	4.00%	4.00%
ross	14	2.80%	2.80%







The Raw data 01

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

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

The Raw data 02

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

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

The Raw data 03

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

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

The Raw data 04

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

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

Two Groups

Part 1 of 2 (250 words)

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

Part 2 of 2 (250 words)

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

Four Groups

Part 1 of 4 (125 words)

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

Part 2 of 4 (125 words)

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

Part 3 of 4 (125 words)

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

Part 4 of 4 (125 words)

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

Five Groups

Part 1 of 5 (100 words)

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

Part 2 of 5 (100 words)

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

Part 3 of 5 (100 words)

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

Part 4 of 5 (100 words)

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

Part 5 of 5 (100 words)

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

Ten Groups

Part 1 of 10 (50 words)

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

Part 2 of 10 (50 words)

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

Part 3 of 10 (50 words)

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

Part 4 of 10 (50 words)

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

Part 5 of 10 (50 words)

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

Part 6 of 10 (50 words)

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

Part 7 of 10 (50 words)

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

Part 8 of 10 (50 words)

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

Part 9 of 10 (50 words)

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

Part 10 of 10 (50 words)

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

Twenty Groups

Part 1 of 20 (25 words)

chaya skyla madalyn jeramiah kaylie jasih skyla jeramiah helen yamilet madalyn hassan
yamilet skyla elsie kaylie hassan elsie sullivan thomas corey stella dangelo sullivan kaylie

Part 2 of 20 (25 words)

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

Part 3 of 20 (25 words)

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

Part 4 of 20 (25 words)

jasiah yusuf chaya dangelo stella tommy dangelo jeramiah yusuf kaylie chaya sullivan sullivan
jeramiah sullivan stella sullivan elsie helen helen hassan jasiah ross chaya yusuf

Part 5 of 20 (25 words)

stella ross chaya tommy kaylie jasiah tommy chaya sullivan thomas patience madalyn stella
tommy chaya jeramiah ross hassan chaya madalyn tommy hassan yamilet kaylie chaya

Part 6 of 20 (25 words)

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

Part 7 of 20 (25 words)

chaya tommy corey tommy kamden yamilet tommy jeramiah yamilet yamilet patience stella
helen skyla chaya madalyn elsie yusuf chaya stella patience stella skyla thomas kamden

Part 8 of 20 (25 words)

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

Part 9 of 20 (25 words)

kaylie thomas jeramiah yusuf jeramiah jasiah ross chaya kaylie chaya tommy kaylie tommy
jasiah tommy chaya hassan stella thomas jasiah skyla ross jeramiah kamden stella

Part 10 of 20 (25 words)

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

Part 11 of 20 (25 words)

jeramiah dangelo stella elsie chaya kaylie kaylie chaya jariah jeramiah elsie sullivan yusuf chaya
jariah elsie jeramiah dangelo madalyn kaylie tommy thomas skyla helen sullivan

Part 12 of 20 (25 words)

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

Part 13 of 20 (25 words)

hassan patience thomas madalyn sullivan chaya kamden thomas chaya jeramiah jasiah dangelo
kaylie madalyn kamden skyla jeramiah hassan helen yusuf kamden thomas kaylie chaya skyla

Part 14 of 20 (25 words)

sullivan thomas madalyn kamden sullivan chaya yusuf patience yamilet yusuf jeramiah kamden patience stella yamilet thomas thomas patience yusuf hassan patience elsie corey thomas jeramiah

Part 15 of 20 (25 words)

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

Part 16 of 20 (25 words)

elsie thomas elsie elsie corey madalyn corey thomas stella helen skyla jasiah thomas helen
sullivan helen sullivan kamden stella jeramiah thomas jasiah jasiah stella ross

Part 17 of 20 (25 words)

corey stella tommy kamden corey patience yamilet jasiah helen jasiah jasiah corey jeramiah
corey sullivan skyla corey elsie kamden skyla hassan kamden skyla jeramiah jeramiah

Part 18 of 20 (25 words)

tommy kaylie corey dangelo yusuf yusuf ross jeramiah dangelo corey sullivan kamden chaya
jeramiah yamilet yamilet madalyn hassan dangelo madalyn helen madalyn tommy sullivan
kaylie

Part 19 of 20 (25 words)

skylar madalyn stella thomas dangelo thomas jeramiah tommy patience yusuf corey ross kaylie
kaylie kaylie dangelo chaya stella sullivan elsie stella kaylie skylar sullivan kaylie

Part 20 of 20 (25 words)

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