

MapReduce

Classroom example

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

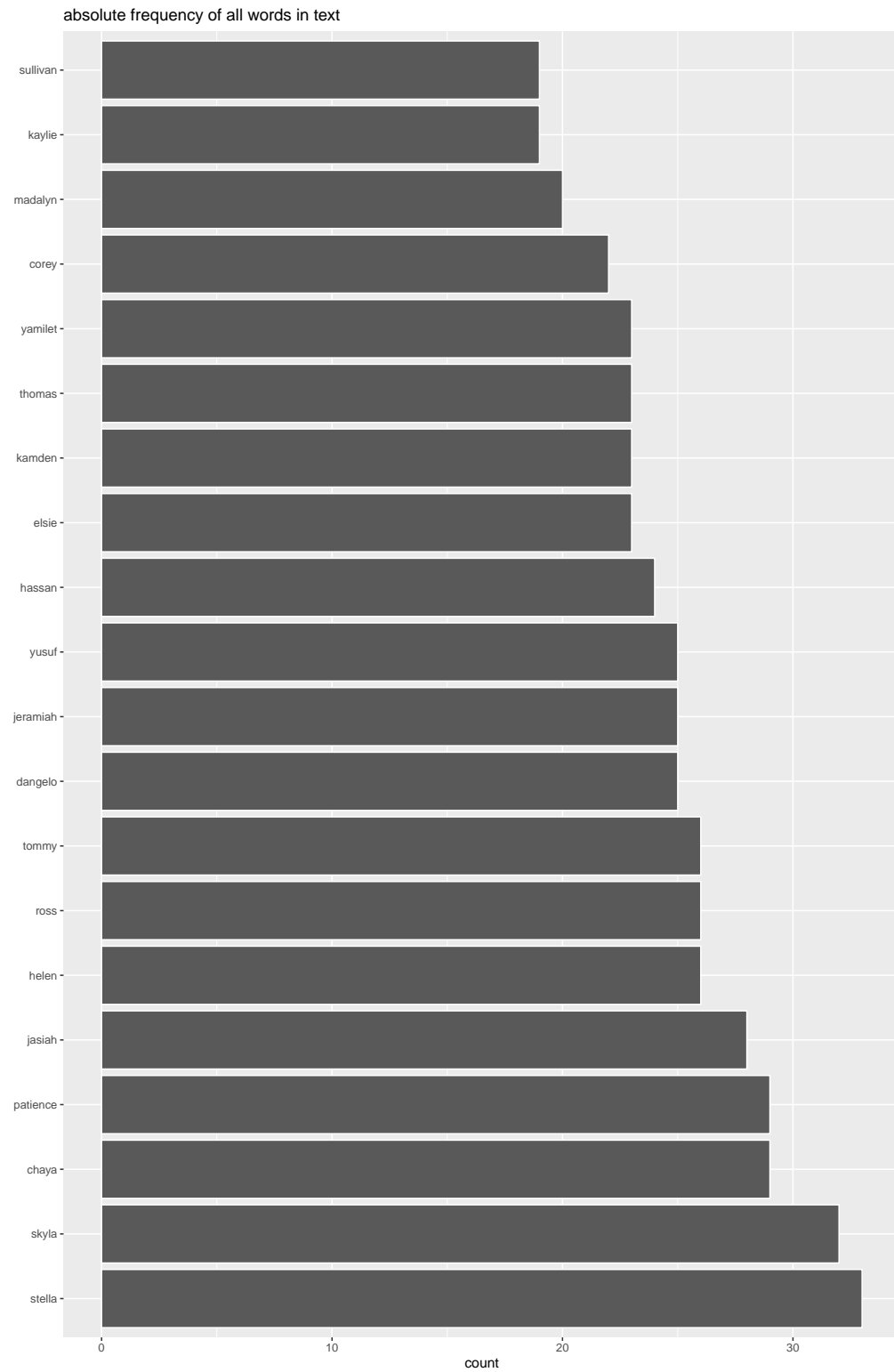
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student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

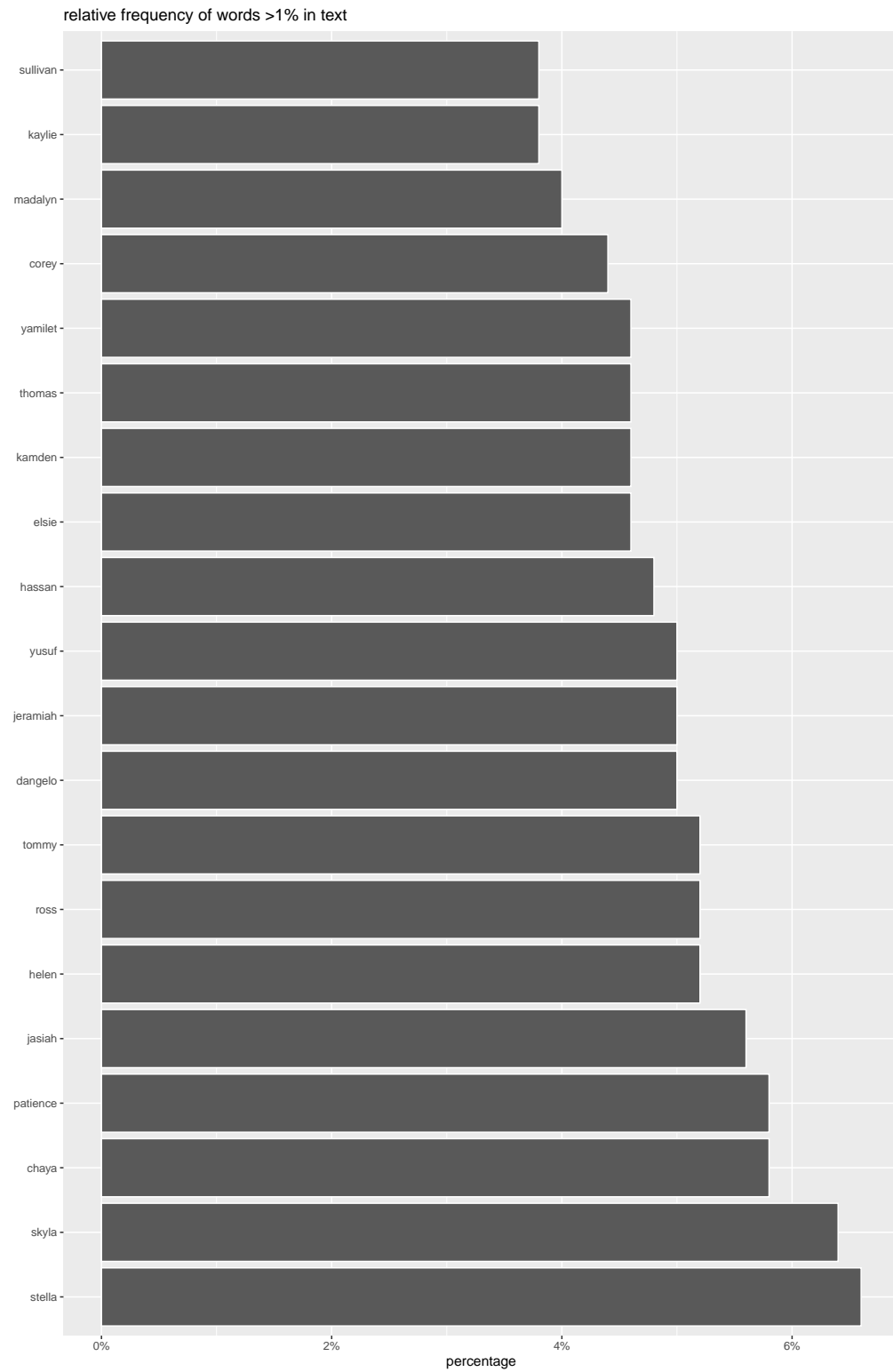
some summary statistics on the raw data

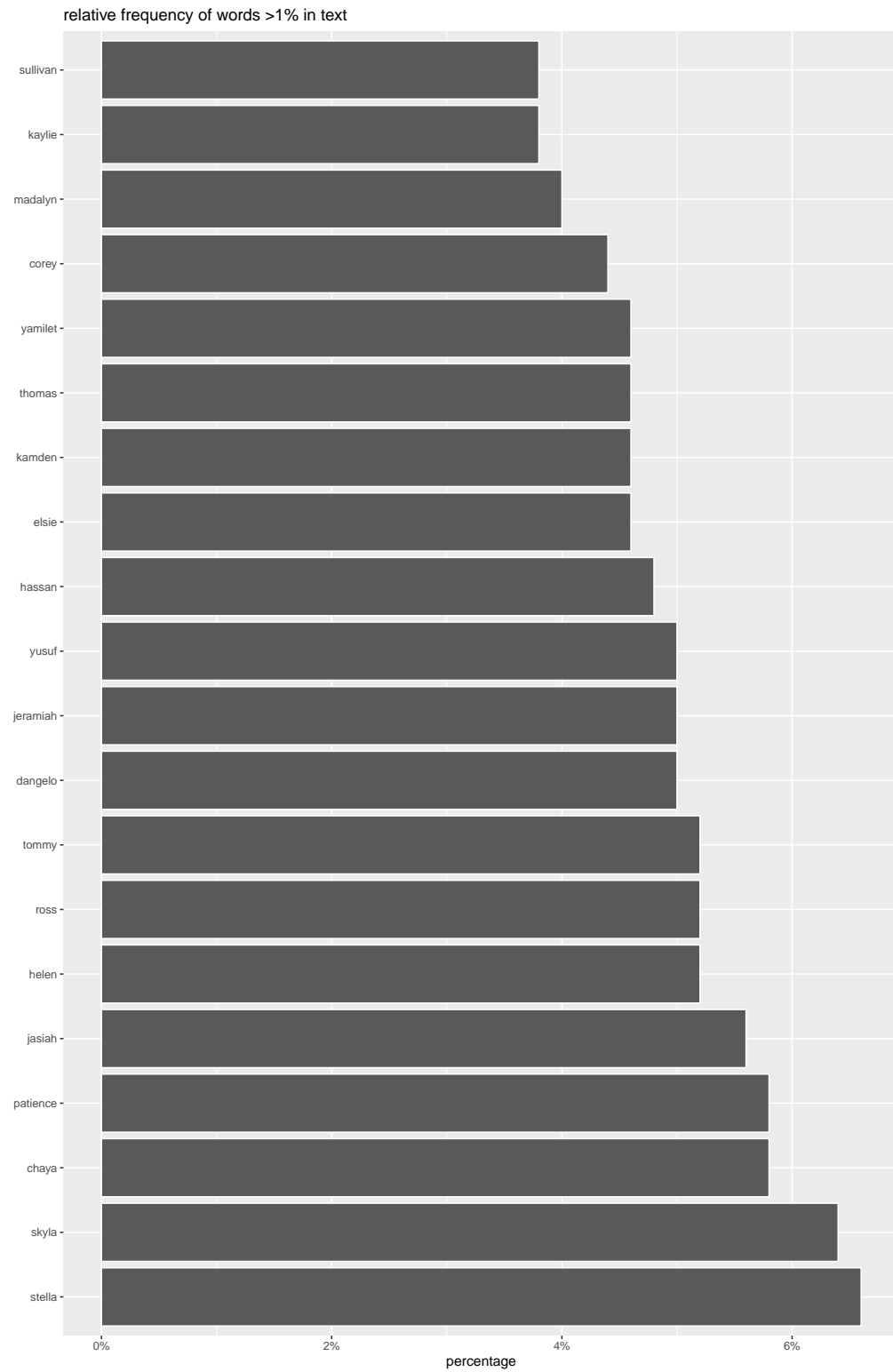
In total there are 500 words available.

words	Freq	percentage	percentage_round
stella	33	6.60%	6.60%
skyla	32	6.40%	6.40%
chaya	29	5.80%	5.80%
patience	29	5.80%	5.80%
jasiah	28	5.60%	5.60%
helen	26	5.20%	5.20%
ross	26	5.20%	5.20%
tommy	26	5.20%	5.20%
dangelo	25	5.00%	5.00%
jeramiah	25	5.00%	5.00%
yusuf	25	5.00%	5.00%
hassan	24	4.80%	4.80%

elsie	23	4.60%	4.60%
kamden	23	4.60%	4.60%
thomas	23	4.60%	4.60%
yamilet	23	4.60%	4.60%
corey	22	4.40%	4.40%
madalyn	20	4.00%	4.00%
kaylie	19	3.80%	3.80%
sullivan	19	3.80%	3.80%







The Raw data 01

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

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

The Raw data 02

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

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

The Raw data 03

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

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

The Raw data 04

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

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

Two Groups

Part 1 of 2 (250 words)

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

Part 2 of 2 (250 words)

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

Four Groups

Part 1 of 4 (125 words)

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

Part 2 of 4 (125 words)

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

Part 3 of 4 (125 words)

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

Part 4 of 4 (125 words)

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

Five Groups

Part 1 of 5 (100 words)

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

Part 2 of 5 (100 words)

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

Part 3 of 5 (100 words)

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

Part 4 of 5 (100 words)

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

Part 5 of 5 (100 words)

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

Ten Groups

Part 1 of 10 (50 words)

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

Part 2 of 10 (50 words)

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

Part 3 of 10 (50 words)

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

Part 4 of 10 (50 words)

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

Part 5 of 10 (50 words)

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

Part 6 of 10 (50 words)

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

Part 7 of 10 (50 words)

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

Part 8 of 10 (50 words)

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

Part 9 of 10 (50 words)

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

Part 10 of 10 (50 words)

skylar tommy elsie hassan stella patience kamden yusuf helen chaya stella stella dangelo
chaya chaya kamden patience yamilet patience chaya jariah yamilet ross stella tommy yamilet
jeremiah dangelo stella skylar helen jariah sullivan skylar hassan tommy hassan patience elsie
kylie thomas elsie ross stella yusuf stella skylar kamden kamden kamden

Twenty Groups

Part 1 of 20 (25 words)

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

Part 2 of 20 (25 words)

skylar kamden jeramiah kaylie jeramiah madalyn yusuf jariah skylar dangelo jeramiah jariah
ross helen tommy yusuf elsie jariah jariah yusuf kamden jariah thomas ross corey

Part 3 of 20 (25 words)

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

Part 4 of 20 (25 words)

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

Part 5 of 20 (25 words)

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

Part 6 of 20 (25 words)

dangelo chaya tommy yamilet helen jasiah patience yusuf jeramiah yamilet patience helen
madalyn corey jeramiah chaya jasiah jeramiah jeramiah jeramiah chaya kaylie tommy ross
kamden

Part 7 of 20 (25 words)

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

Part 8 of 20 (25 words)

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

Part 9 of 20 (25 words)

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

Part 10 of 20 (25 words)

skylar elsie stella kamden helen stella dangelo chaya patience patience jashiah ross tommy
jeramiah stella helen sullivan hassan hassan elsie thomas ross yusuf skylar kamden

Part 11 of 20 (25 words)

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

Part 12 of 20 (25 words)

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

Part 13 of 20 (25 words)

patience jeramiah jasiah jeramiah tommy skyla kaylie chaya madalyn hassan stella patience
helen chaya skyla stella yusuf chaya ross jasiah kamden stella chaya stella patience

Part 14 of 20 (25 words)

tommy kamden jeramiah tommy thomas skyla madalyn jasia h hassan yusuf yusuf yusuf thomas
kamden yusuf yusuf hassan skyla yamilet chaya skyla sullivan ross chaya ross

Part 15 of 20 (25 words)

corey sullivan stella kamden patience elsie sullivan chaya corey skyla elsie jasiah thomas stella
patience stella patience stella hassan jasiah elsie dangelo stella elsie madalyn

Part 16 of 20 (25 words)

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

Part 17 of 20 (25 words)

patience dangelo dangelo yusuf helen ross skyla kamden skyla patience dangelo jasiah patience
yamilet skyla helen yamilet hassan helen chaya helen yamilet skyla ross dangelo

Part 18 of 20 (25 words)

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

Part 19 of 20 (25 words)

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

Part 20 of 20 (25 words)

tommy hassan patience yusuf chaya stella chaya kamden yamilet chaya yamilet stella yamilet
dangelo skyla jasiah skyla tommy patience kaylie elsie stella stella kamden kamden