

MapReduce

Classroom example

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

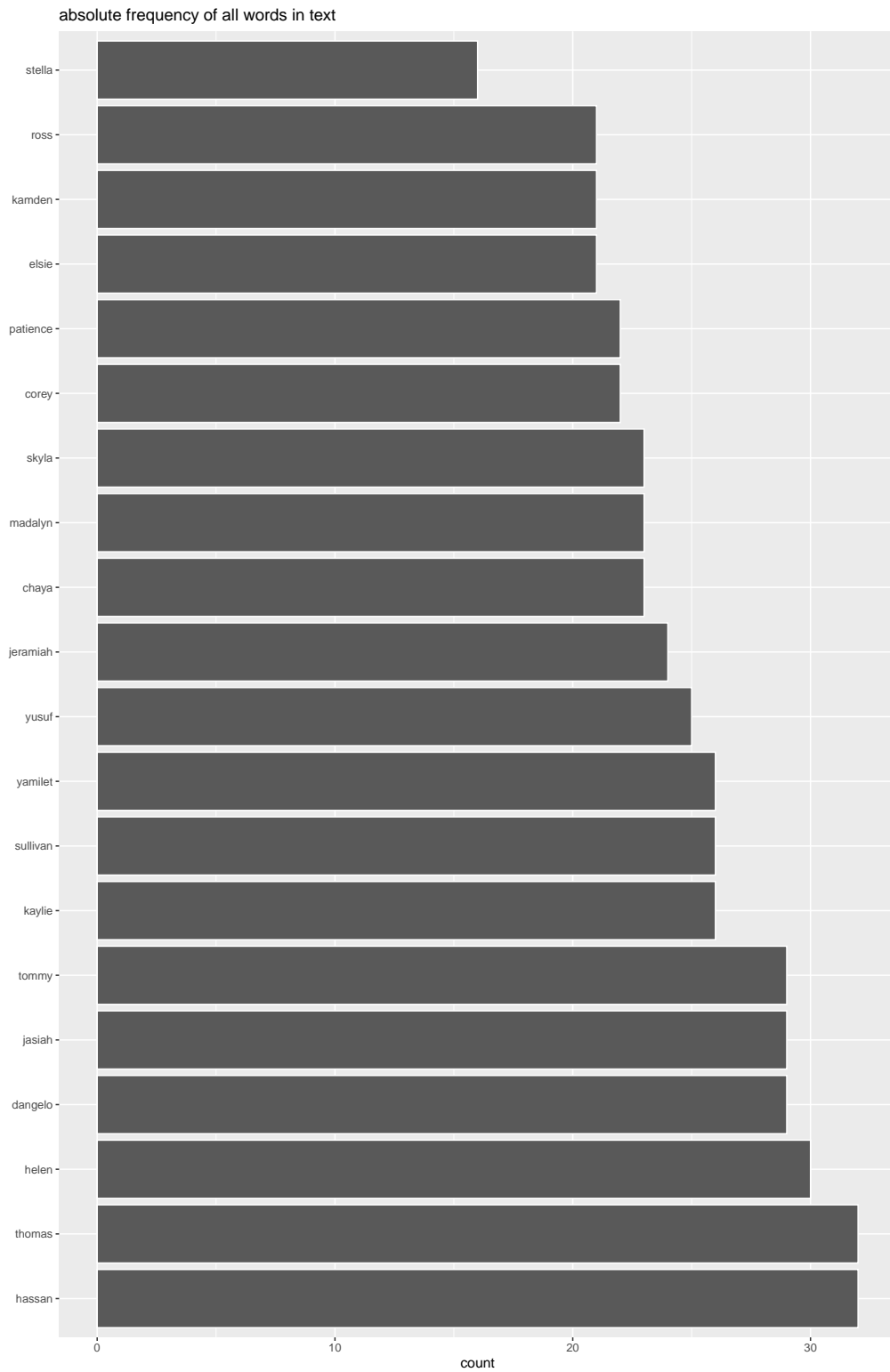
1. print this file
2. give the raw file to 1-4 students, they shall count the words. Measure the time. This is sequential processing.
3. give the chunked file to the respective number of students. There are $n = 2, 4, 5, 10$ groups available. The number of students is the chunk server.
4. one student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

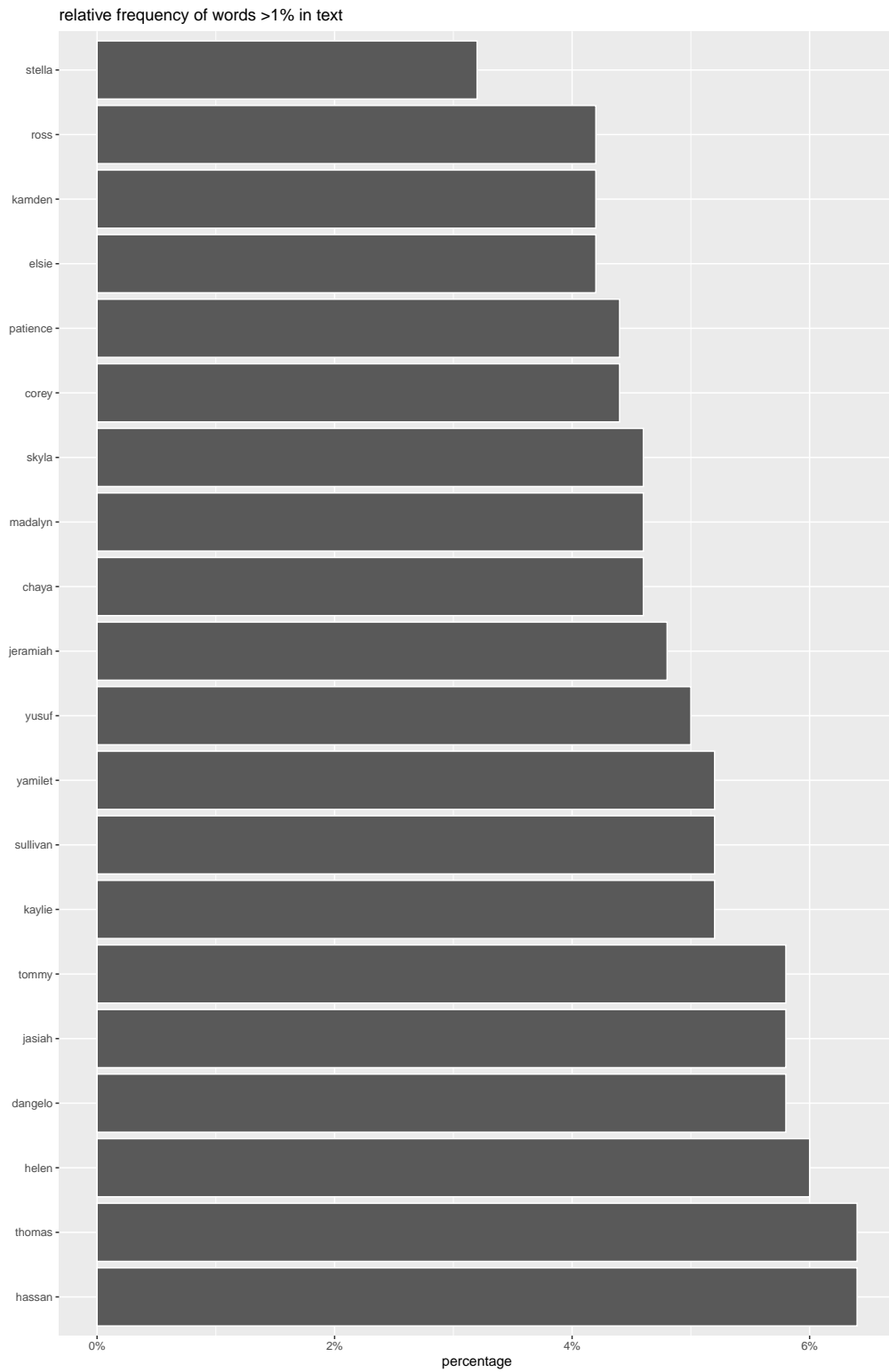
some summary statistics on the raw data

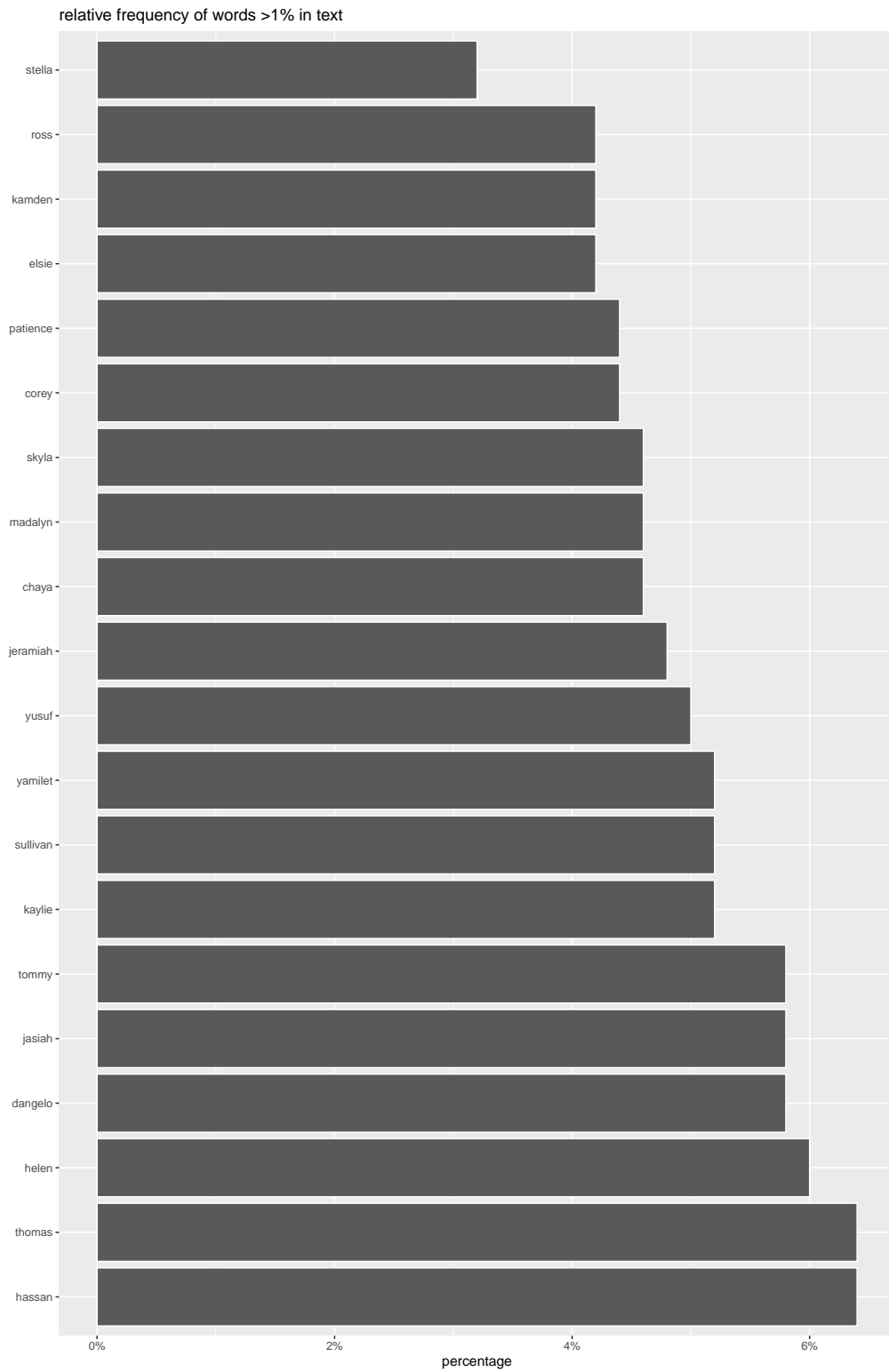
In total there are 500 words available.

words	Freq	percentage	percentage_round
hassan	32	6.40%	6.40%
thomas	32	6.40%	6.40%
helen	30	6.00%	6.00%
dangelo	29	5.80%	5.80%
jasiah	29	5.80%	5.80%
tommy	29	5.80%	5.80%
kaylie	26	5.20%	5.20%
sullivan	26	5.20%	5.20%
yamilet	26	5.20%	5.20%
yusuf	25	5.00%	5.00%
jeramiah	24	4.80%	4.80%
chaya	23	4.60%	4.60%

madalyn	23	4.60%	4.60%
skyla	23	4.60%	4.60%
corey	22	4.40%	4.40%
patience	22	4.40%	4.40%
elsie	21	4.20%	4.20%
kamden	21	4.20%	4.20%
ross	21	4.20%	4.20%
stella	16	3.20%	3.20%







The Raw data 01

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

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

The Raw data 02

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

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

The Raw data 03

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

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

The Raw data 04

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

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

Two Groups

Part 1 of 2 (250 words)

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

Part 2 of 2 (250 words)

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

Four Groups

Part 1 of 4 (125 words)

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

Part 2 of 4 (125 words)

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

Part 3 of 4 (125 words)

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

Part 4 of 4 (125 words)

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

Five Groups

Part 1 of 5 (100 words)

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

Part 2 of 5 (100 words)

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

Part 3 of 5 (100 words)

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

Part 4 of 5 (100 words)

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

Part 5 of 5 (100 words)

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

Ten Groups

Part 1 of 10 (50 words)

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

Part 2 of 10 (50 words)

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

Part 3 of 10 (50 words)

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

Part 4 of 10 (50 words)

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

Part 5 of 10 (50 words)

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

Part 6 of 10 (50 words)

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

Part 7 of 10 (50 words)

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

Part 8 of 10 (50 words)

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

Part 9 of 10 (50 words)

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

Part 10 of 10 (50 words)

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

Twenty Groups

Part 1 of 20 (25 words)

kamden dangelo jeramiah thomas sullivan sullivan ross jeramiah yusuf kaylie yusuf yusuf corey
ross thomas jeramiah tommy madalyn madalyn stella jeramiah yusuf madalyn kaylie hassan

Part 2 of 20 (25 words)

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

Part 3 of 20 (25 words)

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

Part 4 of 20 (25 words)

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

Part 5 of 20 (25 words)

skylar yusuf helen sullivan helen hassan jariah sullivan sullivan yusuf helen hassan elsie jariah
tommy corey patience patience elsie jeremiah tommy helen yamilet kaylie skylar

Part 6 of 20 (25 words)

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

Part 7 of 20 (25 words)

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

Part 8 of 20 (25 words)

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

Part 9 of 20 (25 words)

hassan sullivan jeramiah elsie yusuf chaya chaya tommy yusuf corey yamilet dangelo jeramiah
ross thomas yusuf jasiah sullivan madalyn sullivan hassan ross helen helen corey

Part 10 of 20 (25 words)

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

Part 11 of 20 (25 words)

sullivan patience sullivan patience yusuf jeramiah jeramiah chaya helen madalyn thomas madalyn jasih kamden madalyn skyla chaya patience stella yamilet stella yamilet jeramiah stella sullivan

Part 12 of 20 (25 words)

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

Part 13 of 20 (25 words)

skylar yamilet ross yamilet elsie helen ross corey chaya yamilet thomas thomas thomas yamilet
madalyn corey kaylie thomas tommy jeramiah hassan stella thomas jariah elsie

Part 14 of 20 (25 words)

thomas hassan yamilet thomas hassan madalyn helen yusuf madalyn skyla yamilet jeramiah
helen dangelo thomas helen dangelo dangelo thomas yamilet kaylie helen tommy patience
thomas

Part 15 of 20 (25 words)

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

Part 16 of 20 (25 words)

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

Part 17 of 20 (25 words)

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

Part 18 of 20 (25 words)

thomas hassan tommy hassan jeramiah patience helen kaylie hassan jeramiah thomas kaylie
dangelo dangelo corey jasiah chaya tommy elsie hassan ross madalyn patience corey kaylie

Part 19 of 20 (25 words)

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

Part 20 of 20 (25 words)

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