

Lab Tidyverse

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Lab Tidyverse

Welcome

Just like learning a new spoken language, you will not learn the language without practice. Labs are an important part of this course. Collaboration on labs is **extremely encouraged**. If you find yourself stuck for more than a few minutes, ask a neighbor or course staff for help. When you are giving help to your neighbor, explain the **idea and approach** to the problem without sharing the answer itself so they can figure it out on their own. This will be better for them and for you. For them because it will stick more and they will have a better understanding of the concept. For you because if you can explain it to other students, that means you understand it better too.

Importing Datasets

RStudio allows you to import data sets in a very methodical and simple way.

1. **CSV File**, is a file type that has values separated by commas.
 - Each value after a comma in a CSV file maps to a column in the data frame.
 - Each row in a CSV file maps to a row in the data frame.
 - In our class, we will be mostly using CSV files for our data sets.
2. **Excel Spreadsheets**, is something familiar with and basically represents a data set on a pretty software.
 - This is similar to a CSV file in terms that Excel also uses rows and columns to organize the data set.
 - We will not be using much of Excel in this course, but it never hurts to be a little familiar with it.
3. **Data Set vs Data Frame?**, this question has a very technical answer, but let's boil it down to something simple.
 - Data set is any set of data and it could be structured (i.e. rows/column in Excel, JSON, CSV, etc.) or unstructured (i.e. regular text files, emails, etc.). Unstructured data is something we won't deal with, since it is quite tedious and complicated to process.
 - Data frame is a structure in which a structured data set could be easily shaped into. Think of it like an actual frame of connect4. The data are like the coins, and the frame is structured in rows and columns that you can put your coins into.
 - Usually, we need to import our data sets and store it into a data frame to analyze and manipulate data for our use-case.

Importing Datasets in RStudio

Importing a data set in RStudio is very simple. In the top right window (a.k.a the Local Environment Window), you can see the drop down titled **Import Dataset**. When you click it, you will see a bunch of options of the locations you would like to import your data from. You would be familiar with Excel as a name, but we will be using **From Text (base)...** option as we are importing a CSV file. This should be the first option on the drop down.

Once you choose it, it should open a window to ask you to choose a file. Now all you need to do is find the file we downloaded named `MLB_Batters.csv`.

RStudio will pop up a window asking for Name and bunch of other information. All we need to do is:

1. Change the name to whatever you like.
2. Make Heading -> 'Yes' (it will be a 'No' by default)
3. Check the box that says **String as Factors**

Now you should see that the data set is imported as a data frame on RStudio. It should remind you of an Excel spreadsheet in terms of its table structure. On the top right window, you can see the data set being imported with its count of observations. (row count) and count of variables (column count).

If you need any help finding this file you downloaded, please feel free ask for help from your group members or the instructors. Remember we are trying to learn, collaborate and have fun :)

Problem 1

Part 1: Importing Tidyverse

```
library(tidyverse)

## -- Attaching packages ----- tidyverse 1.3.1 --

## v ggplot2 3.3.6      v purrr 0.3.4
## v tibble 3.1.7       v dplyr 1.0.9
## v tidyr 1.2.0        v stringr 1.4.0
## v readr 2.1.2        v forcats 0.5.1

## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
```

Part 2: Reading the CSV

In the next cell, copy and paste the RStudio import code for the `MLB_Batters` data set.

```
MLB_Batters <- read.csv("~/Classes/DPIsu22/Data Sets/MLB_Batters.csv", stringsAsFactors=TRUE)
MLB_Batters = MLB_Batters %>% rename(Player = "i..Player") #Fixing Import Glitch
```

There may or may not be an import glitch with this data set. If you end up with the first variable being `i..Player`, copy and paste the line of code below and rerun the cell above.

```
MLB_Batters = MLB_Batters %>% rename(Player = "i..Player")
```

In this cell, make sure that you can read the Data frame by printing it. Print out the first ten observations for the sanity of your instructors when they grade this.

```
MLB_Batters
```

	Player	Team	Pos	Age	G	AB	R	H	X2B	X3B	HR	RBI	SB	CS	BB
## 1	Whit Merrifield	KC	2B	31	162	681	105	206	41	10	16	74	20	10	45
## 2	Marcus Semien	OAK	SS	29	162	657	123	187	43	7	33	92	10	8	87
## 3	Rafael Devers	BOS	3B	23	156	647	129	201	54	4	32	115	8	8	48
## 4	Jonathan Villar	BAL	2B	28	162	642	111	176	33	5	24	73	40	9	61
## 5	Ozzie Albies	ATL	2B	23	160	640	102	189	43	8	24	86	15	4	54
## 6	Eduardo Escobar	ARI	2B	31	158	636	94	171	29	10	35	118	5	1	50

## 7	Starlin Castro	MIA	2B	30	162	636	68	172	31	4	22	86	2	2	28
## 8	Jose Abreu	CWS	1B	33	159	634	85	180	38	1	33	123	2	2	36
## 9	Jorge Polanco	MIN	SS	26	153	631	107	186	40	7	22	79	4	3	60
## 10	Ronald Acuna	ATL	OF	22	156	626	127	175	22	2	41	101	37	9	76
## 11	Eric Hosmer	SD	1B	30	160	619	72	164	29	2	22	99	0	3	40
## 12	Amed Rosario	NYM	SS	24	157	616	75	177	30	7	15	72	19	10	31
## 13	Xander Bogaerts	BOS	SS	27	155	614	110	190	52	0	33	117	4	2	76
## 14	Cesar Hernandez	PHI	2B	29	161	612	77	171	31	3	14	71	9	2	45
## 15	DJ LeMahieu	NYY	2B	31	145	602	109	197	33	2	26	102	5	2	46
## 16	Trey Mancini	BAL	1B	28	154	602	106	175	38	2	35	97	1	0	63
## 17	Elvis Andrus	TEX	SS	31	147	600	81	165	27	4	12	72	31	8	34
## 18	Francisco Lindor	CLE	SS	26	143	598	101	170	40	2	32	74	22	5	46
## 19	Paul Goldschmidt	STL	1B	32	161	597	97	155	25	1	34	97	3	1	78
## 20	Freddie Freeman	ATL	1B	30	158	597	113	176	34	2	38	121	6	3	87
## 21	Mookie Betts	BOS	OF	27	150	597	135	176	40	5	29	80	16	3	97
## 22	Pete Alonso	NYM	1B	25	161	597	103	155	30	2	53	120	1	0	72
## 23	David Fletcher	LAA	2B	25	154	596	83	173	30	4	6	49	8	3	55
## 24	Kevin Pillar	SF	OF	31	156	595	82	157	37	3	21	87	14	5	18
## 25	Jorge Soler	KC	OF	28	162	589	95	156	33	1	48	117	3	1	73
## 26	Trevor Story	COL	SS	27	145	588	111	173	38	5	35	85	23	8	58
## 27	Nolan Arenado	COL	3B	28	155	588	102	185	31	2	41	118	3	2	62
## 28	Manny Machado	SD	SS	27	156	587	81	150	21	2	32	85	5	3	65
## 29	Randal Grichuk	TOR	OF	28	151	586	75	136	29	5	31	80	2	1	35
## 30	Paul DeJong	STL	SS	26	159	583	97	136	31	1	30	78	9	5	62
## 31	Matt Chapman	OAK	3B	26	156	583	102	145	36	3	36	91	1	1	73
## 32	Charlie Blackmon	COL	OF	33	140	580	112	182	42	7	32	86	2	5	40
## 33	Leury Garcia	CWS	OF	29	140	577	93	161	27	3	8	40	15	5	21
## 34	Jean Segura	PHI	SS	30	144	576	79	161	37	4	12	60	10	2	30
## 35	J.D. Martinez	BOS	OF	32	146	575	98	175	33	2	36	105	2	0	72
## 36	Michael Brantley	HOU	OF	32	148	575	88	179	40	2	22	90	3	2	51
## 37	Eugenio Suarez	CIN	3B	28	159	575	87	156	22	2	49	103	3	2	70
## 38	Carlos Santana	CLE	1B	33	158	573	110	161	30	1	34	93	4	0	108
## 39	Bryce Harper	PHI	OF	27	157	573	98	149	36	1	35	114	15	3	99
## 40	Rhys Hoskins	PHI	1B	27	160	570	86	129	33	5	29	85	2	2	116
## 41	Ketel Marte	ARI	2B	26	144	569	97	187	36	9	32	92	10	2	53
## 42	Tommy Pham	TB	OF	32	145	567	77	155	33	2	21	68	25	4	81
## 43	Adam Eaton	WAS	OF	31	151	566	103	158	25	7	15	49	15	3	65
## 44	Yuli Gurriel	HOU	1B	35	144	564	85	168	40	2	31	104	5	3	37
## 45	Shin-Soo Choo	TEX	OF	37	151	563	93	149	31	2	24	61	15	1	78
## 46	Lorenzo Cain	MIL	OF	33	148	562	75	146	30	0	11	48	18	8	50
## 47	Eddie Rosario	MIN	OF	28	137	562	91	155	28	1	32	109	3	1	22
## 48	Cody Bellinger	LAD	1B	24	156	558	121	170	34	3	47	115	15	5	95
## 49	Nick Ahmed	ARI	SS	30	158	556	79	141	33	6	19	82	8	2	52
## 50	Alex Gordon	KC	OF	36	150	556	77	148	31	1	13	76	5	3	51
## 51	Alex Bregman	HOU	SS	25	156	554	122	164	37	2	41	112	5	1	119
## 52	Adam Frazier	PIT	2B	28	152	554	80	154	33	7	10	50	5	5	40
## 53	Kole Calhoun	LAA	OF	32	152	552	92	128	29	1	33	74	4	1	70
## 54	Michael Conforto	NYM	OF	27	151	549	90	141	29	1	33	92	7	2	84
## 55	Josh Donaldson	ATL	3B	34	155	549	96	142	33	0	37	94	4	2	100
## 56	Gleyber Torres	NYY	2B	23	144	546	96	152	26	0	38	90	5	2	48
## 57	Victor Robles	WAS	OF	22	155	546	86	139	33	3	17	65	28	9	35
## 58	Anthony Rendon	WAS	3B	29	146	545	117	174	44	3	34	126	5	1	80
## 59	Kris Bryant	CHC	3B	28	147	543	108	153	35	1	31	77	4	0	74
## 60	Juan Soto	WAS	OF	21	150	542	110	153	32	5	34	110	12	1	108

## 61	Andrew Benintendi	BOS	OF	25	138	541	72	144	40	5	13	68	10	3	59
## 62	Renato Nunez	BAL	1B	25	151	541	72	132	24	0	31	90	1	1	44
## 63	Starling Marte	PIT	OF	31	132	539	97	159	31	6	23	82	25	6	25
## 64	J.T. Realmuto	PHI	C	29	145	538	92	148	36	3	25	83	9	1	41
## 65	Javier Baez	CHC	SS	27	138	531	89	149	38	4	29	85	11	7	28
## 66	Willy Adames	TB	SS	24	152	531	69	135	25	1	20	52	4	2	46
## 67	Austin Meadows	TB	OF	24	138	530	83	154	29	7	33	89	12	7	54
## 68	Christian Walker	ARI	1B	29	152	529	86	137	26	1	29	73	8	1	67
## 69	Kyle Schwarber	CHC	OF	27	155	529	82	132	29	3	38	92	2	3	70
## 70	Josh Bell	PIT	1B	27	143	527	94	146	37	3	37	116	0	1	74
## 71	Brandon Belt	SF	1B	31	156	526	76	123	32	3	17	57	4	3	83
## 72	Joey Votto	CIN	1B	36	142	525	79	137	32	1	15	47	5	0	76
## 73	Max Kepler	MIN	OF	27	134	524	98	132	32	0	36	90	1	5	60
## 74	Hanser Alberto	BAL	2B	27	139	524	62	160	21	2	12	51	4	4	16
## 75	Hunter Dozier	KC	3B	28	139	523	75	146	29	10	26	84	2	2	55
## 76	Mike Moustakas	MIL	2B	31	143	523	80	133	30	1	35	87	3	0	53
## 77	Rougned Odor	TEX	2B	26	145	522	77	107	30	1	30	93	11	9	52
## 78	Trea Turner	WAS	SS	26	122	521	96	155	37	5	19	57	35	5	43
## 79	Jason Heyward	CHC	OF	30	147	513	78	129	20	4	21	62	8	3	68
## 80	Yasmani Grandal	MIL	C	31	153	513	79	126	26	2	28	77	5	1	109
## 81	Anthony Rizzo	CHC	1B	30	146	512	89	150	29	3	27	94	5	2	71
## 82	Yoan Moncada	CWS	3B	24	132	511	83	161	34	5	25	79	10	3	40
## 83	Mallex Smith	SEA	OF	26	134	510	70	116	19	9	6	37	46	9	42
## 84	Jeff McNeil	NYM	2B	27	133	510	83	162	38	1	23	75	5	6	35
## 85	Jose Iglesias	CIN	SS	30	146	504	62	145	21	3	11	59	6	6	20
## 86	Josh Reddick	HOU	OF	33	141	501	57	138	19	3	14	56	5	2	36
## 87	Brandon Crawford	SF	SS	33	147	500	58	114	24	2	11	59	3	2	53
## 88	Jose Altuve	HOU	2B	29	124	500	89	149	27	3	31	74	6	5	41
## 89	Tim Anderson	CWS	SS	26	123	498	81	167	32	0	18	56	17	5	15
## 90	Yolmer Sanchez	CWS	2B	27	149	496	59	125	20	4	2	43	5	4	44
## 91	Orlando Arcia	MIL	SS	25	152	494	51	110	16	1	15	59	8	5	43
## 92	Jackie Bradley	BOS	OF	29	147	494	69	111	28	3	21	62	8	6	56
## 93	Miguel Cabrera	DET	1B	36	136	493	41	139	21	0	12	59	0	0	48
## 94	Kevin Newman	PIT	2B	26	130	493	61	152	20	6	12	64	16	8	28
## 95	Albert Pujols	LAA	1B	40	131	491	55	120	22	0	23	93	3	0	43
## 96	Brett Gardner	NYG	OF	36	141	491	86	123	26	7	28	74	10	2	52
## 97	Bryan Reynolds	PIT	OF	25	134	491	83	154	37	4	16	68	3	2	46
## 98	Avisail Garcia	TB	OF	28	125	489	61	138	25	2	20	72	10	4	31
## 99	Christian Yelich	MIL	OF	28	130	489	100	161	29	3	44	97	30	2	80
## 100	Corey Seager	LAD	SS	25	134	489	82	133	44	1	19	87	1	0	44
## 101	Max Muncy	LAD	2B	29	141	487	101	122	22	1	35	98	4	1	90
## 102	Dexter Fowler	STL	OF	34	150	487	69	116	24	1	19	67	8	5	74
## 103	Adam Jones	ARI	OF	34	137	485	66	126	25	1	16	67	2	1	31
## 104	Marcell Ozuna	STL	OF	29	130	485	80	117	23	1	29	89	12	2	62
## 105	Miguel Rojas	MIA	SS	31	132	483	52	137	29	1	5	46	9	5	32
## 106	Dansby Swanson	ATL	SS	26	127	483	77	121	26	3	17	65	10	5	51
## 107	Matt Olson	OAK	1B	25	127	483	73	129	26	0	36	91	0	0	51
## 108	Christian Vazquez	BOS	C	29	138	482	66	133	26	1	23	72	4	2	33
## 109	Jose Ramirez	CLE	3B	27	129	482	68	123	33	3	23	83	24	4	52
## 110	Khris Davis	OAK	DH	32	133	481	61	106	11	0	23	73	0	0	47
## 111	Ryan McMahon	COL	2B	25	141	480	70	120	22	1	24	83	5	1	56
## 112	George Springer	HOU	OF	30	122	479	96	140	20	3	39	96	6	2	67
## 113	Justin Turner	LAD	3B	35	135	479	80	139	24	0	27	67	2	0	51
## 114	Kolten Wong	STL	2B	29	148	478	61	136	25	4	11	59	24	4	47

## 115	Danny Santana	TEX	1B	29	130	474	81	134	23	6	28	81	21	6	25
## 116	Wilson Ramos	NYM	C	32	141	473	52	136	19	0	14	73	1	0	44
## 117	Mike Trout	LAA	OF	28	134	470	110	137	27	2	45	104	11	2	110
## 118	Eloy Jimenez	CWS	OF	23	122	468	69	125	18	2	31	79	0	0	30
## 119	Colin Moran	PIT	3B	27	149	466	46	129	30	1	13	80	0	1	30
## 120	Vladimir Guerrero	TOR	3B	21	123	464	52	126	26	2	15	69	0	1	46
## 121	Daniel Vogelbach	SEA	1B	27	144	462	73	96	17	0	30	76	0	0	92
## 122	Brian Anderson	MIA	3B	26	126	459	57	120	33	1	20	66	5	1	44
## 123	Ryan Braun	MIL	OF	36	144	459	70	131	31	2	22	75	11	1	34
## 124	Jurickson Profar	OAK	2B	27	139	459	65	100	24	2	20	67	9	1	48
## 125	C.J. Cron	MIN	1B	30	125	458	51	116	24	0	25	78	0	0	29
## 126	Jason Kipnis	CLE	2B	32	121	458	52	112	23	1	17	65	7	2	40
## 127	Scott Kingery	PHI	3B	25	126	458	64	118	34	4	19	55	15	4	34
## 128	Nelson Cruz	MIN	DH	39	120	454	81	141	26	0	41	108	0	1	56
## 129	Evan Longoria	SF	3B	34	129	453	59	115	19	2	20	69	3	1	43
## 130	Domingo Santana	SEA	OF	27	121	451	63	114	20	1	21	69	8	3	50
## 131	Freddy Galvis	TOR	2B	30	115	450	55	120	24	1	18	54	4	1	21
## 132	Joc Pederson	LAD	1B	27	149	450	83	112	16	3	36	74	1	1	50
## 133	Todd Frazier	NYM	3B	34	133	447	63	112	19	2	21	67	1	2	40
## 134	Kevin Kiermaier	TB	OF	29	129	447	60	102	20	7	14	55	19	5	26
## 135	Ian Desmond	COL	OF	34	140	443	64	113	31	4	20	65	3	3	34
## 136	Gio Urshela	NYY	3B	28	132	442	73	139	34	0	21	74	1	1	25
## 137	Hunter Renfroe	SD	OF	28	140	440	64	95	19	1	33	64	5	0	46
## 138	James McCann	CWS	C	29	118	439	62	120	26	1	18	60	4	1	30
## 139	Daniel Murphy	COL	1B	34	132	438	56	122	35	1	13	78	1	1	32
## 140	Oscar Mercado	CLE	OF	25	115	438	70	118	25	3	15	54	15	4	28
## 141	Wil Myers	SD	OF	29	155	435	58	104	22	1	18	53	16	7	51
## 142	Ramon Laureano	OAK	OF	25	123	434	79	125	29	0	24	67	13	2	27
## 143	Jonathan Schoop	MIN	2B	28	121	433	61	111	23	1	23	59	1	1	20
## 144	Jorge Alfaro	MIA	C	26	130	431	44	113	14	1	18	57	4	4	22
## 145	Nomar Mazara	TEX	OF	24	116	429	69	115	27	1	19	66	4	1	28
## 146	Luke Voit	NYY	1B	29	118	429	72	113	21	1	21	62	0	0	71
## 147	Omar Narvaez	SEA	C	28	132	428	63	119	12	0	22	55	0	0	47
## 148	Raimel Tapia	COL	OF	26	138	426	54	117	23	5	9	44	9	3	21
## 149	Marwin Gonzalez	MIN	3B	31	114	425	52	112	19	0	15	55	1	0	31
## 150	Niko Goodrum	DET	2B	28	112	423	61	105	27	5	12	45	12	3	46
## 151	Harold Ramirez	MIA	OF	25	119	421	54	116	20	3	11	50	2	1	18
## 152	Robbie Grossman	OAK	OF	30	138	420	57	101	21	3	6	38	9	4	59
## 153	Yadier Molina	STL	C	37	113	419	45	113	24	0	10	57	6	0	23
## 154	Brandon Drury	TOR	3B	27	120	418	43	91	21	1	15	41	0	1	25
## 155	Teoscar Hernandez	TOR	OF	27	125	417	58	96	19	2	26	65	6	3	45
## 156	Brian Dozier	WAS	2B	32	135	416	54	99	20	0	20	50	3	4	61
## 157	Matt Carpenter	STL	3B	34	129	416	59	94	20	2	15	46	6	1	63
## 158	Adalberto Mondesi	KC	SS	24	102	415	58	109	20	10	9	62	43	7	19
## 159	Enrique Hernandez	LAD	2B	28	130	414	57	98	19	1	17	64	4	0	36
## 160	Nick Markakis	ATL	OF	36	116	414	61	118	25	2	9	62	2	0	47
## 161	Justin Smoak	TOR	1B	33	121	414	54	86	16	0	22	61	0	0	79
## 162	Brian Goodwin	LAA	OF	29	136	413	65	108	29	3	17	47	7	3	38
## 163	Ji-Man Choi	TB	1B	28	127	410	54	107	20	2	19	63	2	3	64
## 164	Mark Canha	OAK	OF	31	126	410	80	112	16	3	26	58	3	2	67
## 165	J.D. Davis	NYM	3B	26	140	410	65	126	22	1	22	57	3	0	38
## 166	Buster Posey	SF	C	33	114	405	43	104	24	0	7	38	0	0	34
## 167	Nick Castellanos	DET	OF	28	100	403	57	110	37	3	11	37	2	1	31
## 168	Jarrod Dyson	ARI	OF	35	130	400	65	92	11	2	7	27	30	4	47

## 169	Andrelton Simmons	LAA	SS	30	103	398	47	105	19	0	7	40	10	2	24
## 170	Manuel Margot	SD	OF	25	151	398	59	93	19	3	12	37	20	4	38
## 171	Gary Sanchez	NYY	C	27	106	396	62	92	12	1	34	77	0	1	40
## 172	Eric Thames	MIL	1B	33	149	396	67	98	23	2	25	61	3	2	51
## 173	Dee Gordon	SEA	2B	31	117	393	36	108	12	6	3	34	22	5	18
## 174	Kyle Seager	SEA	3B	32	106	393	55	94	19	1	23	63	2	2	44
## 175	Brandon Dixon	DET	1B	28	118	391	41	97	20	4	15	52	5	1	21
## 176	Robinson Cano	NYM	2B	37	107	390	46	100	28	0	13	39	0	0	25
## 177	Roberto Perez	CLE	C	31	119	389	46	93	9	1	24	63	0	0	45
## 178	Maikel Franco	PHI	3B	27	123	389	48	91	17	0	17	56	0	0	36
## 179	David Peralta	ARI	OF	32	99	382	48	105	29	3	12	57	0	0	35
## 180	Garrett Cooper	MIA	1B	29	107	381	52	107	16	1	15	50	0	0	33
## 181	Anthony Santander	BAL	OF	25	93	380	46	99	20	1	20	59	1	2	19
## 182	Miguel Sano	MIN	3B	26	105	380	76	94	19	2	34	79	0	1	55
## 183	Nicky Lopez	KC	2B	25	103	379	44	91	22	2	2	30	1	1	18
## 184	Melky Cabrera	PIT	OF	35	133	378	43	106	22	1	7	47	2	0	17
## 185	Aaron Judge	NYY	OF	27	102	378	75	103	18	1	27	55	3	2	64
## 186	Jose Peraza	CIN	2B	25	141	376	37	90	18	2	6	33	7	6	17
## 187	Nick Senzel	CIN	OF	24	104	375	55	96	20	4	12	42	14	5	30
## 188	David Dahl	COL	OF	25	100	374	67	113	28	5	15	61	4	4	28
## 189	Yasiel Puig	CIN	OF	29	100	373	51	94	15	1	22	61	14	5	23
## 190	Jake Bauers	CLE	1B	24	117	372	46	84	16	1	12	43	3	3	45
## 191	Mike Yastrzemski	SF	OF	29	107	371	64	101	22	3	21	55	2	4	32
## 192	Rowdy Tellez	TOR	1B	25	111	370	49	84	19	0	21	54	1	1	29
## 193	Rio Ruiz	BAL	3B	25	127	370	35	86	13	2	12	46	0	1	40
## 194	Christin Stewart	DET	OF	26	104	369	32	86	25	1	10	40	0	1	34
## 195	Chris Taylor	LAD	2B	29	124	366	52	96	29	4	12	52	8	0	37
## 196	Robinson Chirinos	HOU	C	35	114	366	57	87	22	1	17	58	1	2	51
## 197	Willson Contreras	CHC	C	27	105	360	57	98	18	2	24	64	1	2	38
## 198	Tony Wolters	COL	C	27	121	359	42	94	17	2	1	42	0	1	36
## 199	Delino DeShields	TEX	OF	27	118	357	42	89	15	4	4	32	24	6	38
## 200	Dwight Smith	BAL	OF	27	101	357	46	86	16	3	13	53	5	1	26
## 201	Stephen Piscotty	OAK	OF	29	93	357	46	89	17	1	13	44	2	0	29
## 202	Luis Rengifo	LAA	2B	23	108	357	44	85	18	3	7	33	2	5	40
## 203	Harold Castro	DET	2B	26	97	354	30	103	10	4	5	38	4	2	9
## 204	Cavan Biggio	TOR	2B	24	100	354	66	83	17	2	16	48	14	0	71
## 205	Harrison Bader	STL	OF	25	128	347	54	71	14	3	12	39	11	3	46
## 206	Michael Chavis	BOS	2B	24	95	347	46	88	10	1	18	58	2	1	31
## 207	Danny Jansen	TOR	C	24	107	347	41	72	12	1	13	43	0	1	31
## 208	J.P. Crawford	SEA	SS	25	93	345	43	78	21	4	7	46	5	3	43
## 209	Joe Panik	SF	2B	29	103	344	33	81	17	1	3	27	4	2	36
## 210	Alex Verdugo	LAD	OF	23	106	343	43	101	22	2	12	44	4	1	26
## 211	Chad Pinder	OAK	2B	27	124	341	45	82	21	0	13	47	0	1	20
## 212	Albert Almora	CHC	OF	25	130	339	41	80	11	1	12	32	2	1	16
## 213	Jesse Winker	CIN	OF	26	113	338	51	91	17	2	16	38	0	2	38
## 214	Neil Walker	MIA	1B	34	115	337	37	88	19	1	8	38	3	0	42
## 215	Jeimer Candelario	DET	1B	26	94	335	33	68	17	2	8	32	3	1	43
## 216	Jose Martinez	STL	OF	31	128	334	45	90	13	2	10	42	3	0	35
## 217	Howie Kendrick	WAS	2B	36	121	334	61	115	23	1	17	62	2	1	27
## 218	Fernando Tatis	SD	SS	21	84	334	61	106	13	6	22	53	16	6	30
## 219	Stevie Wilkerson	BAL	OF	28	119	329	41	74	18	2	10	35	3	3	22
## 220	Ryan O'Hearn	KC	1B	26	105	328	32	64	13	1	14	38	0	1	39
## 221	Travis d'Arnaud	TB	C	31	92	327	50	86	16	0	16	67	0	1	30
## 222	Luis Arraez	MIN	2B	22	92	326	54	109	20	1	4	28	2	2	36

## 223	Tommy Edman	STL	2B	24	92	326	59	99	17	7	11	36	15	1	16
## 224	Didi Gregorius	NYN	SS	30	82	324	47	77	14	2	16	61	2	1	17
## 225	Asdrubal Cabrera	TEX	2B	34	93	323	45	76	15	0	12	51	4	0	38
## 226	Franmil Reyes	SD	OF	24	99	321	43	82	9	0	27	46	0	0	29
## 227	John Hicks	DET	C	30	95	319	29	67	15	0	13	35	1	1	13
## 228	Curtis Granderson	MIA	OF	39	138	317	44	58	17	1	12	34	0	3	41
## 229	Logan Forsythe	TEX	3B	33	101	317	38	72	17	1	7	39	2	0	44
## 230	Tucker Barnhart	CIN	C	29	114	316	32	73	14	0	11	40	1	0	44
## 231	Carson Kelly	ARI	C	25	111	314	46	77	19	0	18	47	0	0	48
## 232	Josh Phegley	OAK	C	32	106	314	44	75	18	0	12	62	0	1	15
## 233	Yan Gomes	WAS	C	32	97	314	36	70	16	0	12	43	2	0	38
## 234	Keston Hiura	MIL	2B	23	84	314	51	95	23	2	19	49	9	3	25
## 235	Lourdes Gurriel	TOR	OF	26	84	314	52	87	19	2	20	50	6	4	20
## 236	Yordan Alvarez	HOU	DH	22	87	313	58	98	26	0	27	78	0	0	52
## 237	Austin Hedges	SD	C	27	102	312	28	55	9	0	11	36	1	0	27
## 238	Greg Garcia	SD	2B	30	134	311	52	77	13	4	4	31	0	2	53
## 239	Ben Gamel	MIL	OF	27	134	311	47	77	18	0	7	33	2	2	40
## 240	Mitch Garver	MIN	C	29	93	311	70	85	16	1	31	67	0	0	41
## 241	Matt Adams	WAS	1B	31	111	310	42	70	14	0	20	56	0	0	20
## 242	Cheslor Cuthbert	KC	1B	27	87	309	24	76	14	0	9	40	1	0	19
## 243	Willie Calhoun	TEX	OF	25	83	309	51	83	14	1	21	48	0	0	23
## 244	A.J. Pollock	LAD	OF	32	86	308	49	82	15	1	15	47	5	1	23
## 245	Chris Davis	BAL	1B	34	105	307	26	55	9	0	12	36	0	0	39
## 246	Yandy Diaz	TB	3B	28	79	307	53	82	20	1	14	38	2	2	35
## 247	Pedro Severino	BAL	C	26	96	305	37	76	13	0	13	44	3	1	29
## 248	Tim Beckham	SEA	SS	30	88	304	39	72	21	1	15	47	1	3	21
## 249	Elias Diaz	PIT	C	29	101	303	31	73	14	0	2	28	0	0	23
## 250	David Bote	CHC	2B	26	127	303	47	78	17	0	11	41	5	1	44
## 251	Garrett Hampson	COL	2B	25	105	299	40	74	9	4	8	27	15	3	24
## 252	JaCoby Jones	DET	OF	27	88	298	39	70	19	3	11	26	7	2	27
## 253	Mitch Moreland	BOS	1B	34	91	298	48	75	17	1	19	58	1	0	34
## 254	Brandon Lowe	TB	2B	25	82	296	42	80	17	2	17	51	5	0	25
## 255	Tommy La Stella	LAA	2B	31	80	292	49	86	8	0	16	44	0	0	20
## 256	Jake Marisnick	HOU	OF	28	120	292	46	68	16	3	10	34	10	3	17
## 257	Eric Sogard	TOR	2B	33	73	287	45	86	17	2	10	30	6	0	29
## 258	Hunter Pence	TEX	OF	36	83	286	53	85	17	1	18	59	6	1	26
## 259	Richie Martin	BAL	SS	25	120	283	29	59	8	3	6	23	10	1	14
## 260	Carlos Correa	HOU	SS	25	75	280	42	78	16	1	21	59	1	0	35
## 261	Kurt Suzuki	WAS	C	36	85	280	37	74	11	0	17	63	0	1	20
## 262	Brian McCann	ATL	C	36	85	277	28	69	9	0	12	45	0	0	31
## 263	Ronny Rodriguez	DET	2B	27	84	276	29	61	12	3	14	43	3	1	13
## 264	Victor Reyes	DET	OF	25	69	276	29	84	16	5	3	25	9	3	14
## 265	Billy Hamilton	KC	OF	29	93	275	32	58	12	2	0	12	18	5	25
## 266	Austin Riley	ATL	OF	22	80	274	41	62	11	1	18	49	0	2	16
## 267	Tyler Naquin	CLE	OF	28	89	274	34	79	19	0	10	34	4	2	14
## 268	Dawel Lugo	DET	3B	25	77	273	28	67	11	4	6	26	0	0	8
## 269	Pablo Sandoval	SF	3B	33	108	272	42	73	23	0	14	41	1	0	18
## 270	Tyler Flowers	ATL	C	34	85	271	36	62	11	3	11	34	0	0	31
## 271	Byron Buxton	MIN	OF	26	87	271	48	71	30	4	10	46	14	3	19
## 272	Mike Zunino	TB	C	29	90	266	30	44	10	1	9	32	0	0	20
## 273	Wilmer Flores	ARI	2B	28	89	265	31	84	18	0	9	37	0	0	15
## 274	Jose Osuna	PIT	1B	27	95	261	41	69	20	0	10	36	0	0	18
## 275	Steven Duggar	SF	OF	26	73	261	26	61	12	2	4	28	1	4	16
## 276	Mike Tauchman	NYN	OF	29	87	260	46	72	18	1	13	47	6	0	34

## 277	Tom Murphy	SEA	C	28	76	260	32	71	12	1	18	40	2	0	19
## 278	Brock Holt	BOS	2B	31	87	259	38	77	14	2	3	31	1	0	28
## 279	Juan Lagares	NYM	OF	31	133	258	38	55	12	1	5	27	4	1	22
## 280	Ian Kinsler	SD	2B	37	87	258	28	56	12	0	9	22	2	4	19
## 281	Jordy Mercer	DET	SS	33	74	256	24	69	16	0	9	22	0	0	13
## 282	Ronald Guzman	TEX	1B	25	87	256	34	56	20	0	10	36	1	2	32
## 283	Jon Berti	MIA	SS	30	73	256	52	70	14	1	6	24	17	3	24
## 284	Stephen Vogt	SF	C	35	99	255	30	67	24	2	10	40	3	1	20
## 285	Josh Naylor	SD	OF	22	94	253	29	63	15	0	8	32	1	1	25
## 286	Billy McKinney	TOR	OF	25	84	251	37	54	14	1	12	28	0	2	19
## 287	Derek Dietrich	CIN	2B	30	113	251	41	47	8	2	19	43	1	1	28
## 288	Matt Beaty	LAD	1B	26	99	249	36	66	19	1	9	46	5	0	17
## 289	Dylan Moore	SEA	SS	27	113	247	31	51	14	2	9	28	11	9	25
## 290	Mitch Haniger	SEA	OF	29	63	246	46	54	13	1	15	32	4	0	30
## 291	Martin Prado	MIA	3B	36	104	245	26	57	9	0	2	15	0	0	12
## 292	Victor Caratini	CHC	C	26	95	244	31	65	11	0	11	34	1	0	29
## 293	Joey Gallo	TEX	OF	26	70	241	54	61	15	1	22	49	4	2	52
## 294	Edwin Encarnacion	SEA	1B	37	65	241	48	58	7	0	21	49	0	1	41
## 295	Jonathan Lucroy	LAA	C	33	74	240	28	58	8	1	7	30	0	0	21
## 296	Cameron Maybin	NYY	OF	32	82	239	48	68	17	0	11	32	9	6	30
## 297	Martin Maldonado	KC	C	33	74	238	26	54	15	0	6	17	0	0	17
## 298	Joey Wendle	TB	2B	29	75	238	32	55	13	2	3	19	8	3	14
## 299	Austin Nola	SEA	1B	30	79	238	37	64	12	1	10	31	1	0	23
## 300	Jason Castro	MIN	C	32	79	237	39	55	9	0	13	30	0	0	33
## 301	Leonys Martin	CLE	OF	32	65	236	32	47	7	0	9	19	4	5	21
## 302	Phillip Ervin	CIN	OF	27	94	236	30	64	11	7	7	23	4	3	18
## 303	Hernan Perez	MIL	2B	29	91	232	29	53	11	0	8	18	5	1	11
## 304	Johan Camargo	ATL	SS	26	98	232	31	54	12	1	7	32	1	0	15
## 305	Greg Allen	CLE	OF	27	89	231	30	53	9	3	4	27	8	2	11
## 306	Travis Shaw	MIL	3B	29	86	230	22	36	5	0	7	16	0	0	36
## 307	Wellington Castillo	CWS	C	32	72	230	19	48	12	0	12	41	0	0	16
## 308	Austin Romine	NYY	C	31	73	228	29	64	12	0	8	35	1	1	10
## 309	Jeff Mathis	TEX	C	36	88	228	17	36	9	0	2	12	1	0	15
## 310	Josh VanMeter	CIN	OF	25	95	228	33	54	13	1	8	23	9	3	29
## 311	Adam Engel	CWS	OF	28	89	227	26	55	10	2	6	26	3	3	14
## 312	Francisco Mejia	SD	C	24	79	226	27	60	11	2	8	22	1	1	13
## 313	Lewis Brinson	MIA	OF	25	75	226	15	39	9	1	0	15	1	1	13
## 314	Clint Frazier	NYY	OF	25	69	225	31	60	14	0	12	38	1	2	16
## 315	Jordan Luplow	CLE	OF	26	85	225	42	62	15	1	15	38	3	2	33
## 316	Gordon Beckham	DET	2B	33	83	223	29	48	13	2	6	15	3	1	13
## 317	Jesus Aguilar	MIL	1B	29	94	222	26	50	9	0	8	34	0	0	31
## 318	Adam Haseley	PHI	OF	23	67	222	30	59	14	0	5	26	4	0	14
## 319	Aaron Hicks	NYY	OF	30	59	221	41	52	10	0	12	36	1	2	31
## 320	Yonder Alonso	CWS	1B	32	67	219	23	39	6	0	7	27	0	1	29
## 321	Justin Upton	LAA	OF	32	63	219	34	47	8	0	12	40	1	1	32
## 322	Andrew McCutchen	PHI	OF	33	59	219	45	56	12	1	10	29	2	1	43
## 323	Tyler White	HOU	1B	29	71	218	16	49	14	0	3	21	0	0	32
## 324	Ryan Cordell	CWS	OF	27	97	217	22	48	8	0	7	24	3	1	19
## 325	Addison Russell	CHC	2B	26	82	215	25	51	4	1	9	23	2	0	20
## 326	Donovan Solano	SF	2B	32	81	215	27	71	13	1	4	23	0	1	10
## 327	Luis Urias	SD	2B	22	71	215	27	48	8	1	4	24	0	1	25
## 328	Tim Locastro	ARI	OF	27	91	212	38	53	12	2	1	17	17	0	14
## 329	Nick Castellanos	CHC	OF	28	51	212	43	68	21	0	16	36	0	1	10
## 330	Austin Barnes	LAD	C	30	75	212	28	43	12	1	5	25	3	0	23

## 331	Aledmys Diaz	HOU	2B	29	69	210	36	57	12	1	9	40	2	0	26
## 332	Russell Martin	LAD	C	37	83	209	29	46	5	0	6	20	1	0	30
## 333	Grayson Greiner	DET	C	27	58	208	18	42	5	1	5	19	0	0	13
## 334	Curt Casali	CIN	C	31	84	207	24	52	9	0	8	32	0	0	25
## 335	Daniel Robertson	TB	2B	26	74	207	23	44	9	1	2	19	2	2	24
## 336	Aristides Aquino	CIN	OF	25	56	205	31	53	8	0	19	47	7	0	16
## 337	Guillermo Heredia	TB	OF	29	89	204	31	46	13	0	5	20	2	2	18
## 338	Ehire Adrianza	MIN	SS	30	84	202	34	55	8	3	5	22	0	2	20
## 339	Isiah Kiner-Falefa	TEX	C	25	65	202	23	48	12	1	1	21	3	0	14
## 340	Ildemaro Vargas	ARI	2B	28	92	201	25	54	9	1	6	24	1	0	9
## 341	Matt Joyce	ATL	OF	35	129	200	32	59	10	0	7	23	0	0	38
## 342	Brandon Nimmo	NYM	OF	27	69	199	34	44	11	1	8	29	3	0	46
## 343	Ender Inciarte	ATL	OF	29	65	199	30	49	11	2	5	24	7	1	26
## 344	Jake Cave	MIN	OF	27	72	198	28	51	11	2	8	25	0	0	21
## 345	Bo Bichette	TOR	SS	22	46	196	32	61	18	0	11	21	4	4	14
## 346	Jacob Stallings	PIT	C	30	71	191	26	50	5	0	6	13	0	0	16
## 347	Kevan Smith	LAA	C	31	67	191	21	48	12	0	5	20	2	0	16
## 348	Willians Astudillo	MIN	C	28	58	190	28	51	9	0	4	21	0	0	5
## 349	Gerardo Parra	WAS	OF	32	89	188	30	47	11	1	8	42	6	2	11
## 350	Jake Lamb	ARI	3B	29	78	187	26	36	8	2	6	30	1	0	32
## 351	Bubba Starling	KC	OF	27	56	186	26	40	7	0	4	12	2	0	9
## 352	Ty France	SD	2B	25	69	184	20	43	8	1	7	24	0	2	9
## 353	Kyle Farmer	CIN	2B	29	97	183	22	42	6	0	9	27	4	1	10
## 354	Yasiel Puig	CLE	OF	29	49	182	25	54	15	1	2	23	5	2	21
## 355	Isan Diaz	MIA	2B	23	49	179	17	31	5	2	5	23	0	3	19
## 356	Austin Dean	MIA	OF	26	64	178	17	40	14	0	6	21	0	2	9
## 357	Dominic Smith	NYM	1B	24	89	177	35	50	10	0	11	25	1	2	19
## 358	Edwin Encarnacion	NYY	1B	37	44	177	33	44	11	0	13	37	0	0	17
## 359	Mike Freeman	CLE	2B	32	75	177	27	49	8	0	4	24	1	2	22
## 360	Franmil Reyes	CLE	OF	24	51	173	26	41	10	0	10	35	0	0	18
## 361	Jung Ho Kang	PIT	3B	32	65	172	15	29	7	1	10	24	0	0	11
## 362	Yairo Munoz	STL	3B	25	88	172	20	46	7	1	2	13	8	3	7
## 363	Sandy Leon	BOS	C	31	65	172	14	33	3	0	5	19	0	0	13
## 364	Ryan Zimmerman	WAS	1B	35	52	171	20	44	9	0	6	27	0	0	17
## 365	Will Smith	LAD	C	25	54	170	30	43	9	0	15	42	2	0	18
## 366	Travis Demeritte	DET	OF	25	48	169	24	38	7	2	3	10	3	0	14
## 367	Ryon Healy	SEA	3B	28	47	169	24	40	16	0	7	26	0	0	13
## 368	Austin Slater	SF	OF	27	68	168	20	40	9	3	5	21	1	0	22
## 369	Matt Wieters	STL	C	33	67	168	15	36	4	0	11	27	1	1	12
## 370	Daniel Descalso	CHC	2B	33	82	168	20	29	5	1	2	15	2	1	23
## 371	Eduardo Nunez	BOS	2B	32	60	167	13	38	7	0	2	20	5	1	4
## 372	Chance Sisco	BAL	C	25	59	167	29	35	7	0	8	20	0	1	22
## 373	Jon Jay	CWS	OF	35	47	165	12	44	8	0	0	9	0	0	8
## 374	Jay Bruce	SEA	OF	32	47	165	27	35	11	0	14	28	1	0	16
## 375	Alex Avila	ARI	C	33	63	164	22	34	8	0	9	24	1	0	36
## 376	Tony Kemp	HOU	2B	28	66	163	23	37	6	2	7	17	4	3	16
## 377	David Freese	LAD	3B	36	79	162	35	51	13	0	11	29	0	0	23
## 378	Manny Pina	MIL	C	32	76	158	10	36	8	0	7	25	0	0	16
## 379	Kevin Plawecki	CLE	C	29	60	158	13	35	10	0	3	17	0	1	12
## 380	Trent Grisham	MIL	OF	23	51	156	24	36	6	2	6	24	1	0	20
## 381	Alex Dickerson	SF	OF	29	56	155	28	45	13	3	6	26	1	1	13
## 382	Gregory Polanco	PIT	OF	28	42	153	23	37	8	1	6	17	3	1	12
## 383	Shed Long	SEA	2B	24	42	152	21	40	12	1	5	15	3	3	16
## 384	Nate Lowe	TB	1B	24	50	152	24	40	8	0	7	19	0	0	13

## 385	Justin Bour	LAA	1B	31	52	151	18	26	5	0	8	26	0	0	17
## 386	Ben Zobrist	CHC	2B	38	47	150	24	39	5	0	1	17	0	0	23
## 387	Marco Hernandez	BOS	2B	27	61	148	18	37	7	0	2	11	1	2	3
## 388	Matt Duffy	TB	3B	29	46	147	12	37	8	0	1	12	0	1	19
## 389	Cole Tucker	PIT	SS	23	56	147	16	31	10	3	2	13	0	0	10
## 390	Matt Thaiss	LAA	3B	24	53	147	17	31	7	0	8	23	0	0	17
## 391	Jay Bruce	PHI	OF	32	51	145	16	32	6	0	12	31	0	0	3
## 392	Chris Iannetta	COL	C	36	52	144	20	32	10	0	6	21	0	0	18
## 393	Charlie Tilson	CWS	OF	27	54	144	16	33	5	0	1	12	4	0	10
## 394	Ryan Goins	CWS	3B	32	52	144	13	36	6	1	2	10	0	1	17
## 395	Sam Travis	BOS	1B	26	59	144	17	31	4	1	6	16	2	0	11
## 396	Mike Ford	NYY	1B	27	50	143	30	37	7	0	12	25	0	0	17
## 397	Pablo Reyes	PIT	OF	26	71	143	18	29	7	2	2	19	1	1	13
## 398	Erik Gonzalez	PIT	SS	28	53	142	15	36	4	1	1	6	4	1	9
## 399	Jose Rondon	CWS	2B	26	55	142	10	28	3	0	3	9	0	0	11
## 400	Adeiny Hechavarria	NYM	SS	30	60	142	20	29	7	0	5	18	3	1	8
## 401	Tyler O'Neill	STL	OF	24	60	141	18	37	6	0	5	16	1	0	10
## 402	Ian Happ	CHC	OF	25	58	140	25	37	7	1	11	30	2	0	15
## 403	Josh Rojas	ARI	OF	25	41	138	17	30	7	0	2	16	4	2	18
## 404	Josh Harrison	DET	2B	32	36	137	10	24	7	1	1	8	4	2	6
## 405	Andrew Knapp	PHI	C	28	74	136	12	29	9	0	2	8	0	0	18
## 406	Tomas Nido	NYM	C	25	50	136	9	26	5	0	4	14	0	0	7
## 407	Charlie Culberson	ATL	OF	30	108	135	14	35	5	2	5	20	0	1	6
## 408	Mark Reynolds	COL	1B	36	78	135	13	23	7	0	4	20	2	0	22
## 409	Chris Owings	KC	2B	28	41	135	9	18	4	1	2	9	4	1	8
## 410	Corey Dickerson	PHI	OF	30	34	133	13	39	10	2	8	34	0	0	3
## 411	Meibrys Vilorio	KC	C	23	42	133	7	28	7	0	1	15	0	1	10
## 412	JT Riddle	MIA	OF	28	51	132	15	25	6	0	6	12	0	0	5
## 413	Mike Brosseau	TB	2B	26	51	132	17	36	7	0	6	16	1	0	7
## 414	Wilmer Difo	WAS	SS	27	43	131	15	33	2	0	2	8	0	1	12
## 415	Tyler Austin	SF	1B	28	70	130	24	24	2	1	8	20	1	0	17
## 416	Corey Dickerson	PIT	OF	30	44	127	20	40	18	0	4	25	1	0	13
## 417	Cam Gallagher	KC	C	27	45	126	14	30	7	0	3	12	0	1	11
## 418	Odubel Herrera	PHI	OF	28	39	126	12	28	10	1	1	16	2	2	11
## 419	DJ Stewart	BAL	OF	26	44	126	15	30	6	0	4	15	1	2	14
## 420	Asdrubal Cabrera	WAS	2B	34	38	124	24	40	10	1	6	40	0	0	19
## 421	Humberto Arteaga	KC	SS	26	41	122	11	24	4	0	0	4	1	1	8
## 422	Adam Duvall	ATL	OF	31	41	120	17	32	4	1	10	19	0	0	7
## 423	Jose Trevino	TEX	C	27	40	120	18	31	9	0	2	13	0	0	3
## 424	Luke Maile	TOR	C	29	45	119	9	18	2	1	2	9	1	0	8
## 425	Brad Miller	PHI	3B	30	66	118	22	31	3	1	12	21	1	0	11
## 426	Joey Rickard	BAL	OF	28	42	118	10	24	7	2	2	6	3	2	14
## 427	Nick Solak	TEX	DH	25	33	116	19	34	6	1	5	17	2	0	15
## 428	Bryan Holaday	MIA	C	32	43	115	12	32	6	0	4	12	0	1	11
## 429	Sean Rodriguez	PHI	3B	34	76	112	24	25	5	0	4	12	1	1	19
## 430	Jake Rogers	DET	C	24	35	112	11	14	3	0	4	8	0	0	13
## 431	Tim Lopes	SEA	OF	25	41	111	11	30	7	0	1	12	6	3	15
## 432	Eric Sogard	TB	2B	33	37	109	14	29	6	0	3	10	2	0	9
## 433	Francisco Cervelli	PIT	C	34	34	109	11	21	3	0	1	5	1	0	9
## 434	Kendrys Morales	OAK	1B	36	34	108	9	22	1	1	1	7	0	0	14
## 435	Roman Quinn	PHI	OF	26	44	108	18	23	3	1	4	11	8	0	12
## 436	Myles Straw	HOU	SS	25	56	108	27	29	4	2	0	7	8	1	19
## 437	Freddy Galvis	CIN	2B	30	32	107	12	25	4	0	5	16	0	1	7
## 438	Nick Williams	PHI	OF	26	67	106	9	16	4	0	2	5	0	0	4

## 439	Rosell Herrera	MIA	OF	27	63	105	10	21	6	0	2	11	4	1	11
## 440	Carlos Gonzalez	CLE	OF	34	30	105	13	22	1	0	2	7	0	1	10
## 441	Lucas Duda	KC	1B	34	39	105	7	18	4	0	4	15	0	0	11
## 442	Mauricio Dubon	SF	2B	25	28	104	12	29	5	0	4	9	3	1	5
## 443	Keon Broxton	BAL	OF	29	37	103	14	21	3	0	4	9	4	1	8
## 444	Jace Peterson	BAL	OF	29	29	100	14	22	3	1	2	11	4	1	6
## 445	Willi Castro	DET	SS	22	30	100	10	23	6	1	1	8	0	1	6
## 446	Reese McGuire	TOR	C	25	30	97	14	29	7	0	5	11	0	0	7
## 447	Zack Cozart	LAA	3B	34	38	97	4	12	2	0	0	7	0	0	5
## 448	Yonathan Daza	COL	OF	26	44	97	7	20	1	1	0	3	1	0	7
## 449	Cory Spangenberg	MIL	2B	29	32	95	11	22	2	2	2	10	3	0	6
## 450	Joe Panik	NYM	2B	29	39	94	17	26	4	1	2	12	0	0	7
## 451	Tyler Wade	NYY	2B	25	43	94	16	23	3	1	2	11	7	0	11
## 452	Derek Fisher	TOR	OF	26	40	93	14	15	2	0	6	12	1	0	14
## 453	Jesus Aguilar	TB	1B	29	37	92	13	24	3	0	4	16	0	0	12
## 454	Max Stassi	HOU	C	29	31	90	4	15	1	0	1	3	0	0	7
## 455	Steve Pearce	BOS	1B	36	29	89	9	16	4	0	1	9	0	0	7
## 456	Rafael Ortega	ATL	OF	28	34	88	7	18	3	0	2	10	3	0	8
## 457	Michael Taylor	WAS	OF	29	53	88	10	22	7	0	1	3	6	0	7
## 458	Carlos Gomez	NYM	OF	34	34	86	10	17	3	0	3	10	4	1	7
## 459	Gerardo Parra	SF	OF	32	30	86	8	17	3	0	1	6	2	1	8
## 460	Zack Collins	CWS	DH	25	27	86	10	16	3	1	3	12	0	0	14
## 461	Daniel Palka	CWS	OF	28	30	84	4	9	0	0	2	4	0	1	8
## 462	Martin Maldonado	HOU	C	33	27	84	20	17	4	0	6	10	0	0	13
## 463	Cesar Puello	MIA	OF	28	32	84	8	15	2	0	1	6	0	0	7
## 464	Chris Herrmann	OAK	C	32	30	84	9	17	3	0	1	8	0	0	9
## 465	Wilfredo Tovar	LAA	SS	28	31	83	5	16	5	0	0	5	0	0	5
## 466	Jonathan Davis	TOR	OF	27	37	83	8	15	1	0	2	6	3	1	5
## 467	Nick Martini	SD	OF	29	26	82	7	20	4	1	0	5	0	0	12
## 468	Tony Kemp	CHC	2B	28	44	82	8	15	3	2	1	12	0	1	7
## 469	Scott Schebler	CIN	OF	29	30	81	11	10	2	0	2	7	0	1	14
## 470	Pat Valaika	COL	2B	27	40	79	11	15	5	1	1	4	0	0	7
## 471	Jared Walsh	LAA	1B	26	34	79	6	16	5	1	1	5	0	0	6
## 472	Nico Hoerner	CHC	SS	22	20	78	13	22	1	1	3	17	0	0	3
## 473	Abraham Toro	HOU	3B	23	25	78	13	17	3	2	2	9	1	1	9
## 474	Sam Hilliard	COL	OF	26	27	77	13	21	4	2	7	13	2	0	9
## 475	Mac Williamson	SEA	OF	29	25	77	10	14	0	0	3	10	0	1	9
## 476	Brendan Rodgers	COL	2B	23	25	76	8	17	2	0	0	7	0	0	4
## 477	Ryan McBroom	KC	OF	27	23	75	8	22	5	0	0	6	0	0	7
## 478	Tim Federowicz	TEX	C	32	29	75	6	12	2	0	4	7	1	0	5
## 479	Scott Heineman	TEX	OF	27	25	75	8	16	6	0	2	7	1	2	9
## 480	Gavin Lux	LAD	2B	22	23	75	12	18	4	1	2	9	2	0	7
## 481	Seth Brown	OAK	OF	27	26	75	11	22	8	2	0	13	1	0	7
## 482	Richard Urena	TOR	SS	24	30	74	4	18	6	0	0	4	0	0	2
## 483	Yu Chang	CLE	3B	24	28	73	8	13	2	1	1	6	0	0	11
## 484	Yangervis Solarte	SF	2B	32	28	73	9	15	5	0	1	7	0	0	4
## 485	Yonder Alonso	COL	1B	32	54	73	11	19	7	0	3	10	0	0	10
## 486	Kelvin Gutierrez	KC	3B	25	20	73	4	19	2	1	1	11	1	0	5
## 487	Robel Garcia	CHC	2B	27	31	72	8	15	2	2	5	11	0	0	7
## 488	Matt Skole	CWS	DH	30	27	72	7	15	2	0	0	6	0	0	7
## 489	Kevin Cron	ARI	1B	27	39	71	12	15	4	0	6	16	0	1	4
## 490	Kyle Lewis	SEA	OF	24	18	71	10	19	5	0	6	13	0	0	3
## 491	Austin Wynns	BAL	C	29	28	70	8	15	1	0	1	5	0	0	3
## 492	Nick Hundley	OAK	C	36	31	70	5	14	3	1	2	5	0	1	2

## 493	Scooter Gennett	CIN	2B	29	21	69	4	15	3	0	0	5	0	0	1
## 494	Dustin Garneau	LAA	C	32	28	69	11	16	3	0	2	7	0	0	8
## 495	Austin Hays	BAL	OF	24	21	68	12	21	6	0	4	13	2	0	7
## 496	Kyle Tucker	HOU	OF	23	22	67	15	18	6	0	4	11	5	0	4
## 497	Blake Swihart	ARI	OF	27	31	66	9	9	0	0	3	9	0	0	4
## 498	Phil Gosselin	PHI	OF	31	44	65	5	17	3	0	0	7	0	0	3
## 499	Tyler Saladino	MIL	SS	30	28	65	7	8	0	0	2	8	2	0	5
## 500	Brett Phillips	KC	OF	25	30	65	7	9	2	0	2	6	3	0	10
## 501	Austin Allen	SD	C	26	34	65	4	14	4	0	0	3	0	0	6
## 502	Scooter Gennett	SF	2B	29	21	64	11	15	4	0	2	6	0	0	1
## 503	Thairo Estrada	NYY	2B	24	35	64	12	16	3	0	3	12	4	0	3
## 504	Cedric Mullins	BAL	OF	25	22	64	7	6	0	2	0	4	1	0	4
## 505	Jack Mayfield	HOU	SS	29	26	64	8	10	5	0	2	5	0	0	1
## 506	Nicky Delmonico	CWS	OF	27	21	63	6	13	2	0	1	6	0	1	4
## 507	John Ryan Murphy	ARI	C	28	25	62	9	11	3	0	4	7	0	0	6
## 508	Kendrys Morales	NYY	1B	36	19	62	7	11	1	0	1	5	0	0	12
## 509	Jesus Sucre	BAL	C	31	21	62	3	13	2	0	0	3	0	0	4
## 510	Adeiny Hechavarria	ATL	SS	30	24	61	14	20	5	1	4	15	0	0	6
## 511	Luis Guillorme	NYM	2B	25	45	61	8	15	4	0	1	3	0	0	7
## 512	Matt Kemp	CIN	OF	35	20	60	4	12	2	0	1	5	0	0	1
## 513	Yadiel Rivera	MIA	SS	27	34	60	8	11	2	0	0	3	2	0	6
## 514	Giancarlo Stanton	NYY	OF	30	18	59	8	17	3	0	3	13	0	0	12
## 515	Franklin Barreto	OAK	2B	24	23	57	6	7	2	0	2	5	1	0	1
## 516	Braden Bishop	SEA	OF	26	27	56	3	6	0	0	0	4	0	0	3
## 517	Jedd Gyorko	STL	3B	31	38	56	5	11	0	0	2	7	2	0	6
## 518	LaMonte Wade	MIN	OF	26	26	56	10	11	2	1	2	5	0	1	11
## 519	Sheldon Neuse	OAK	2B	25	25	56	3	14	3	0	0	7	0	0	4
## 520	Kyle Higashioka	NYY	C	29	18	56	8	12	5	0	3	11	0	0	0
## 521	Nick Dini	KC	C	26	20	56	11	11	3	0	2	6	0	0	4
## 522	Josh Fuentes	COL	1B	27	24	55	8	12	1	0	3	7	1	0	1
## 523	Isaac Galloway	MIA	OF	30	19	54	6	9	1	0	0	1	2	0	0
## 524	Kris Negron	LAD	OF	34	30	54	9	14	1	0	2	7	0	1	3
## 525	Jonathan Lucroy	CHC	C	33	27	53	2	10	2	0	1	6	0	0	6
## 526	Derek Fisher	HOU	OF	26	17	53	9	12	2	1	1	5	4	1	7
## 527	Andrew Knizner	STL	C	25	18	53	7	12	2	0	2	7	2	0	4
## 528	Sean Murphy	OAK	C	25	20	53	14	13	5	0	4	8	0	0	6
## 529	Keon Broxton	SEA	OF	29	29	52	5	6	0	0	2	5	2	4	8
## 530	Mac Williamson	SF	OF	29	15	51	3	6	1	0	1	7	2	0	5
## 531	Terrance Gore	KC	OF	28	37	51	13	14	2	1	0	1	13	5	6
## 532	Christian Arroyo	TB	3B	24	16	50	8	11	2	0	2	7	0	0	5
## 533	Joey Rickard	SF	OF	28	26	50	4	14	2	0	1	4	1	0	4
## 534	Anthony Bemboom	LAA	C	30	22	49	2	5	0	0	1	3	0	0	1
## 535	Keon Broxton	NYM	OF	29	34	49	5	7	1	0	0	2	4	1	4
## 536	Gorkys Hernandez	BOS	OF	32	20	49	5	7	1	2	0	2	1	0	5
## 537	Hanley Ramirez	CLE	DH	36	16	49	4	9	1	0	2	8	0	0	8
## 538	Chad Wallach	MIA	C	28	19	48	4	12	3	0	1	3	0	0	6
## 539	Kyle Garlick	LAD	OF	28	30	48	8	12	4	0	3	6	0	0	5
## 540	Edwin Rios	LAD	1B	25	28	47	10	13	2	1	4	8	0	0	9
## 541	J.B. Shuck	PIT	OF	32	27	47	4	10	0	1	0	2	1	1	8
## 542	Jake Elmore	PIT	OF	32	20	47	3	10	1	0	0	4	0	1	2
## 543	Miguel Andujar	NYY	DH	25	12	47	1	6	0	0	0	1	0	0	1
## 544	Michael Perez	TB	C	27	22	46	6	10	5	0	0	2	0	0	8
## 545	Bobby Bradley	CLE	DH	23	15	45	4	8	5	0	1	4	0	0	4
## 546	Chris Owings	BOS	2B	28	26	45	4	7	2	0	1	5	1	1	6

## 547	Bobby Wilson	DET	C	36	15	44	2	4	1	0	0	2	0	0	2
## 548	Peter Bourjos	LAA	OF	32	26	44	4	4	1	0	0	2	2	0	1
## 549	AJ Reed	CWS	DH	26	14	44	1	6	0	0	1	4	0	0	4
## 550	Dustin Peterson	DET	OF	25	17	44	3	10	4	0	0	6	1	0	2
## 551	Alen Hanson	TOR	2B	27	18	43	5	7	0	0	0	4	1	0	3
## 552	Drew Butera	COL	C	36	16	43	6	7	3	0	0	3	0	0	4
## 553	Max Stassi	LAA	C	29	20	42	3	3	0	0	0	2	0	0	5
## 554	Peter O'Brien	MIA	OF	29	14	42	2	7	1	0	1	4	1	0	4
## 555	Aramis Garcia	SF	C	27	18	42	5	6	1	0	2	5	0	0	4
## 556	Taylor Ward	LAA	OF	26	20	42	4	8	3	0	1	2	0	0	6
## 557	Kevin Kramer	PIT	OF	26	22	42	5	7	1	0	0	5	0	1	6
## 558	Jaylin Davis	SF	OF	25	17	42	2	7	0	0	1	3	1	2	3
## 559	Brian O'Grady	CIN	OF	27	28	42	4	8	2	1	2	3	0	0	4
## 560	Eric Stamets	CLE	SS	28	15	41	4	2	1	0	0	2	0	0	5
## 561	Billy Hamilton	ATL	OF	29	26	41	9	11	2	0	0	3	4	1	7
## 562	Cesar Puello	LAA	OF	28	12	41	6	16	3	0	3	12	0	0	3
## 563	Carlos Gonzalez	CHC	OF	34	15	40	8	7	2	0	1	3	0	2	8
## 564	Magneuris Sierra	MIA	OF	23	15	40	5	14	1	1	0	1	3	3	2
## 565	Jake Fraley	SEA	OF	24	12	40	3	6	2	0	0	1	0	0	0
## 566	Carter Kieboom	WAS	SS	22	11	39	4	5	0	0	2	2	0	0	4
## 567	Danny Mendick	CWS	SS	26	16	39	6	12	0	0	2	4	0	0	1
## 568	Socrates Brito	TOR	OF	27	17	39	5	3	0	1	0	2	0	0	4
## 569	Dom Nunez	COL	C	25	16	39	4	7	3	0	2	4	0	0	3
## 570	Rangel Ravelo	STL	1B	27	29	39	4	8	2	0	2	7	0	0	3
## 571	Caleb Joseph	ARI	C	33	20	38	5	8	2	0	0	3	0	0	1
## 572	Lane Thomas	STL	OF	24	34	38	6	12	0	1	4	12	1	1	4
## 573	Corban Joseph	OAK	2B	31	11	37	4	7	2	0	1	5	0	0	2
## 574	Jedd Gyorko	LAD	3B	31	24	36	1	5	1	0	0	2	0	0	3
## 575	Brad Miller	CLE	3B	30	13	36	4	9	3	0	1	4	1	0	4
## 576	Mark Zagunis	CHC	OF	27	30	36	2	9	3	0	0	5	0	0	4
## 577	Alex Blandino	CIN	2B	27	23	36	6	9	1	0	1	3	0	0	10
## 578	Michael Hermosillo	LAA	OF	25	18	36	7	5	1	1	0	3	2	0	5
## 579	Jason Martin	PIT	OF	24	20	36	5	9	2	0	0	2	2	0	4
## 580	Garrett Stubbs	HOU	C	26	19	35	8	7	3	0	0	2	1	0	4
## 581	Greg Bird	NYY	1B	27	10	35	6	6	0	0	1	1	0	0	6
## 582	Logan Morrison	PHI	1B	32	29	35	5	7	1	0	2	3	0	0	3
## 583	Erik Kratz	SF	C	39	15	32	1	4	2	0	1	3	0	0	2
## 584	Francisco Cervelli	ATL	C	34	14	32	4	9	5	1	2	7	0	0	4
## 585	Breyvic Valera	NYY	2B	28	12	32	5	7	1	1	0	3	0	0	4
## 586	Max Moroff	CLE	2B	26	20	32	3	4	1	0	1	4	1	0	2
## 587	Abraham Almonte	ARI	OF	30	17	31	11	9	3	1	1	4	0	0	7
## 588	Aaron Altherr	NYM	OF	29	26	31	6	4	1	0	1	2	0	0	2
## 589	Adrian Sanchez	WAS	3B	29	28	31	3	7	0	0	0	1	0	0	1
## 590	Mason Williams	BAL	OF	28	11	30	4	8	1	0	0	2	1	0	3
## 591	Andrew Stevenson	WAS	OF	25	30	30	4	11	1	1	0	0	0	1	6
## 592	Seth Mejias-Brean	SD	1B	28	14	30	3	7	2	0	2	5	0	0	3
## 593	Aaron Altherr	PHI	OF	29	22	29	2	1	1	0	0	1	0	0	1
## 594	Mark Trumbo	BAL	DH	34	12	29	1	5	3	0	0	3	0	0	2
## 595	Anthony Alford	TOR	OF	25	16	28	3	5	0	0	1	1	2	0	1
## 596	Patrick Wisdom	TEX	1B	28	9	26	1	4	1	0	0	1	0	0	1
## 597	Blake Swihart	BOS	OF	27	12	26	4	6	1	0	1	4	0	0	2
## 598	Kaleb Cowart	LAA	3B	27	9	25	1	4	3	0	0	1	1	0	1
## 599	Rajai Davis	NYM	OF	39	29	25	4	5	2	0	1	8	0	1	1
## 600	Domingo Leyba	ARI	2B	24	21	25	6	7	2	1	0	5	0	0	4

## 601	Mike Gerber	SF	OF	27	12	24	0	1	1	0	0	0	0	0	2
## 602	Ryan Court	SEA	1B	31	12	24	1	5	1	0	1	5	0	0	1
## 603	Beau Taylor	OAK	C	30	10	23	3	4	0	0	2	2	0	0	4
## 604	Kris Negron	SEA	OF	34	10	23	3	5	0	0	0	1	1	0	2
## 605	Travis d'Arnaud	NYM	C	31	10	23	2	2	0	0	0	2	0	0	2
## 606	Ryan LaMarre	MIN	OF	31	14	23	3	5	0	0	2	3	1	1	3
## 607	Mikie Mahtook	DET	OF	30	9	23	0	0	0	0	0	0	0	0	2
## 608	Cristhian Adames	SF	2B	28	10	22	1	7	1	0	0	2	0	0	2
## 609	Travis Jankowski	SD	OF	28	25	22	4	4	0	0	0	0	2	2	2
## 610	Tyler White	LAD	1B	29	12	22	2	1	0	0	0	2	0	0	4
## 611	Erick Mejia	KC	OF	25	9	22	3	5	1	0	0	4	0	0	4
## 612	Ryan Flaherty	CLE	3B	33	14	21	4	3	2	0	0	1	0	0	0
## 613	Dustin Pedroia	BOS	2B	36	6	20	1	2	0	0	0	1	0	0	1
## 614	Tzu-Wei Lin	BOS	2B	26	13	20	3	4	2	0	0	1	1	1	2
## 615	Jorge Bonifacio	KC	OF	26	5	20	3	7	3	0	0	3	0	0	1
## 616	Tyler Austin	MIL	1B	28	17	20	5	4	2	0	1	4	1	0	6
## 617	Randy Arozarena	STL	OF	25	19	20	4	6	1	0	1	2	2	1	2
## 618	Alex Dickerson	SD	OF	29	12	19	1	3	0	0	0	2	0	0	0
## 619	Ryan Lavarney	CIN	C	32	5	18	4	5	2	0	2	7	0	0	1
## 620	Chris Shaw	SF	1B	25	16	18	0	1	0	0	0	0	0	0	2
## 621	Juan Graterol	CIN	C	31	6	18	1	4	0	0	0	1	0	0	0
## 622	Taylor Davis	CHC	C	30	7	18	2	3	0	0	1	4	0	0	2
## 623	Ian Miller	MIN	OF	28	12	17	2	3	1	0	0	1	0	0	0
## 624	Dustin Garneau	OAK	C	32	7	17	3	5	2	0	1	7	0	0	2
## 625	Jose Pirela	PHI	OF	30	12	17	1	4	1	0	1	2	0	0	2
## 626	Erik Kratz	TB	C	39	6	17	0	1	0	0	0	0	0	0	0
## 627	Rene Rivera	NYM	C	36	9	17	2	4	0	0	1	3	0	0	3
## 628	Corban Joseph	SF	2B	31	8	16	0	1	0	0	0	2	0	0	1
## 629	Kevin Pillar	TOR	OF	31	5	16	1	1	0	0	0	1	0	0	0
## 630	Ronald Torreyes	MIN	SS	27	7	16	3	3	0	0	0	1	1	0	0
## 631	Eric Haase	CLE	C	27	10	16	1	1	0	0	1	3	0	0	1
## 632	Donovan Walton	SEA	SS	25	7	16	2	3	0	0	0	2	0	1	3
## 633	Frank Schwindel	KC	1B	27	6	15	0	1	0	0	0	0	0	0	0
## 634	Breyvic Valera	TOR	2B	28	5	15	2	4	1	0	1	3	0	0	0
## 635	Connor Joe	SF	OF	27	8	15	1	1	0	0	0	0	0	0	1
## 636	Juan Centeno	BOS	C	30	7	15	0	2	0	0	0	2	1	0	2
## 637	Franchy Cordero	SD	OF	25	9	15	2	5	1	0	0	1	1	0	4
## 638	Rocky Gale	LAD	C	32	5	15	1	2	0	0	0	0	0	0	0
## 639	Kean Wong	TB	2B	24	6	14	1	3	0	0	0	0	0	1	0
## 640	Luis Torrens	SD	C	23	7	14	2	3	1	0	0	0	0	0	2
## 641	Zach Green	SF	3B	26	8	14	1	2	1	0	0	1	0	0	2
## 642	David Freitas	MIL	C	31	16	13	1	1	0	0	0	0	0	0	3
## 643	Alex Jackson	ATL	C	24	4	13	0	0	0	0	0	0	0	0	1
## 644	Bradley Zimmer	CLE	OF	27	9	13	1	0	0	0	0	0	0	0	1
## 645	Andrew Velazquez	TB	2B	25	10	12	2	1	1	0	0	0	0	0	0
## 646	Jarrett Parker	LAA	OF	31	5	12	1	0	0	0	0	0	0	0	3
## 647	Seby Zavala	CWS	C	26	5	12	1	1	0	0	0	0	0	0	0
## 648	Jake Noll	WAS	1B	26	8	12	1	2	1	0	0	2	0	0	1
## 649	Raudy Read	WAS	C	26	6	11	0	1	0	0	0	0	0	0	0
## 650	Nick Martini	OAK	OF	29	6	11	1	1	0	0	1	2	0	0	2
## 651	Corban Joseph	PIT	2B	31	9	11	1	2	1	0	0	0	0	0	0
## 652	Troy Tulowitzki	NYN	SS	35	5	11	1	2	1	0	1	1	0	0	2
## 653	Andrew Velazquez	CLE	2B	25	5	11	1	1	1	0	0	0	1	0	1
## 654	Tyler Heineman	MIA	C	28	5	11	1	3	1	0	1	2	0	0	0

## 655	Martin Maldonado	CHC	C	33	4	11	0	0	0	0	0	0	0	0	2
## 656	Tyrone Taylor	MIL	OF	26	15	10	1	4	2	0	0	1	0	0	1
## 657	Skye Bolt	OAK	OF	26	5	10	1	1	1	0	0	0	0	0	1
## 658	Steve Baron	PIT	C	29	7	10	0	2	1	0	0	1	0	0	0
## 659	Ruben Tejada	NYM	SS	30	6	9	1	0	0	0	0	0	0	0	0
## 660	Deivy Grullon	PHI	C	24	4	9	0	1	1	0	0	1	0	0	0
## 661	Michael Reed	SF	OF	27	4	8	0	0	0	0	0	0	0	0	0
## 662	Edmundo Sosa	STL	2B	24	8	8	2	2	0	0	0	0	1	0	1
## 663	Wilkin Castillo	MIA	C	35	2	7	0	1	1	0	0	2	0	0	0
## 664	Jed Lowrie	NYM	2B	35	9	7	0	0	0	0	0	0	0	0	1
## 665	Drew Robinson	STL	OF	27	5	7	1	1	0	0	0	0	0	0	0
## 666	Abiatal Avelino	SF	SS	25	4	7	0	2	0	0	0	1	0	0	1
## 667	Christian Colon	CIN	2B	30	8	6	1	3	0	0	0	1	0	0	0
## 668	Jacob Nottingham	MIL	C	24	9	6	1	2	0	0	1	4	0	0	0
## 669	Nick Ciuffo	TB	C	25	3	6	0	1	0	0	0	0	0	0	0
## 670	Yasmany Tomas	ARI	DH	29	4	6	0	0	0	0	0	0	0	0	0
## 671	Jose Pirela	SD	OF	30	2	5	0	0	0	0	0	0	0	0	0
## 672	Deven Marrero	MIA	SS	29	5	5	0	0	0	0	0	0	0	0	0
## 673	Jim Adduci	CHC	OF	34	2	5	0	0	0	0	0	0	0	0	0
## 674	Ichiro Suzuki	SEA	OF	46	2	5	0	0	0	0	0	0	0	0	1
## 675	Anthony Bemboom	TB	C	30	3	5	0	2	1	0	0	1	0	0	0
## 676	Johnny Davis	TB	OF	29	8	4	5	1	0	1	0	0	0	0	0
## 677	Sam Haggerty	NYM	2B	25	11	4	2	0	0	0	0	0	0	0	0
## 678	Tyler Austin	MIN	1B	28	2	4	1	1	1	0	0	0	0	0	1
## 679	Kean Wong	LAA	2B	24	1	4	1	0	0	0	0	0	0	0	0
## 680	Drew Jackson	BAL	OF	26	3	3	0	0	0	0	0	0	0	0	1
## 681	Mauricio Dubon	MIL	2B	25	2	2	0	0	0	0	0	0	0	0	0
## 682	David Freitas	SEA	C	31	1	2	1	0	0	0	0	1	0	0	1
## 683	Beau Taylor	TOR	C	30	1	2	0	0	0	0	0	0	0	0	0
## 684	Mitch Walding	PHI	3B	27	2	2	0	0	0	0	0	0	0	0	0
## 685	Noel Cuevas	COL	OF	28	1	2	0	0	0	0	0	0	0	0	0
## 686	Tres Barrera	WAS	C	25	2	2	0	0	0	0	0	0	0	0	0
## 687	Joe Hudson	STL	C	28	1	1	0	0	0	0	0	0	0	0	0
## 688	Dylan Cozens	PHI	OF	25	1	1	0	0	0	0	0	0	0	0	0
## 689	Jose Rondon	BAL	2B	26	1	1	0	0	0	0	0	0	0	0	0
## 690	Travis d'Arnaud	LAD	C	31	1	1	0	0	0	0	0	0	0	0	0
## 691	Aaron Altherr	SF	OF	29	1	1	0	0	0	0	0	0	0	0	0
## 692	Rob Brantly	PHI	C	30	1	1	0	0	0	0	0	0	0	0	0
## 693	John Ryan Murphy	ATL	C	28	1	1	0	0	0	0	0	0	0	0	0
##	SO SH SF HBP	AVG	OBP	SLG	OPS										
## 1	126	0	4	5	0.302	0.348	0.463	0.811							
## 2	102	0	1	2	0.285	0.369	0.522	0.891							
## 3	119	1	2	4	0.311	0.361	0.555	0.916							
## 4	176	2	4	4	0.274	0.339	0.453	0.792							
## 5	112	0	4	4	0.295	0.352	0.500	0.852							
## 6	130	0	10	3	0.269	0.320	0.511	0.831							
## 7	111	0	9	3	0.270	0.300	0.436	0.736							
## 8	152	0	10	13	0.284	0.330	0.503	0.833							
## 9	116	2	7	4	0.295	0.356	0.485	0.841							
## 10	188	0	1	9	0.280	0.365	0.518	0.883							
## 11	163	0	5	3	0.265	0.310	0.425	0.735							
## 12	124	2	3	3	0.287	0.323	0.432	0.755							
## 13	122	0	6	2	0.309	0.384	0.555	0.939							
## 14	100	0	4	6	0.279	0.333	0.408	0.741							

## 15	90	1	4	2	0.327	0.375	0.518	0.893
## 16	143	0	5	9	0.291	0.364	0.535	0.899
## 17	96	0	10	4	0.275	0.313	0.393	0.706
## 18	98	1	6	3	0.284	0.335	0.518	0.853
## 19	166	0	3	2	0.260	0.346	0.476	0.822
## 20	127	0	2	6	0.295	0.389	0.549	0.938
## 21	101	0	9	3	0.295	0.391	0.524	0.915
## 22	183	0	3	21	0.260	0.358	0.583	0.941
## 23	64	1	1	0	0.290	0.350	0.384	0.734
## 24	86	0	6	9	0.264	0.293	0.442	0.735
## 25	178	0	4	10	0.265	0.354	0.569	0.923
## 26	174	0	3	7	0.294	0.363	0.554	0.917
## 27	93	0	8	4	0.315	0.379	0.583	0.962
## 28	128	0	3	6	0.256	0.334	0.462	0.796
## 29	163	0	2	5	0.232	0.280	0.457	0.737
## 30	149	0	6	13	0.233	0.318	0.444	0.762
## 31	147	0	3	11	0.249	0.342	0.506	0.848
## 32	104	0	5	9	0.314	0.364	0.576	0.940
## 33	139	11	3	6	0.279	0.310	0.378	0.688
## 34	73	1	3	8	0.280	0.323	0.420	0.743
## 35	138	0	5	4	0.304	0.383	0.557	0.940
## 36	66	0	4	7	0.311	0.372	0.503	0.875
## 37	189	0	6	11	0.271	0.358	0.572	0.930
## 38	108	0	2	3	0.281	0.397	0.515	0.912
## 39	178	0	4	6	0.260	0.372	0.510	0.882
## 40	173	0	6	11	0.226	0.364	0.454	0.818
## 41	86	0	2	4	0.329	0.389	0.592	0.981
## 42	123	0	1	5	0.273	0.369	0.450	0.819
## 43	106	9	3	13	0.279	0.365	0.428	0.793
## 44	65	0	6	5	0.298	0.343	0.541	0.884
## 45	165	0	1	18	0.265	0.371	0.455	0.826
## 46	106	0	4	6	0.260	0.325	0.372	0.697
## 47	86	0	6	0	0.276	0.300	0.500	0.800
## 48	108	0	4	3	0.305	0.406	0.629	1.035
## 49	113	1	12	4	0.254	0.316	0.437	0.753
## 50	100	1	6	19	0.266	0.345	0.396	0.741
## 51	83	0	8	9	0.296	0.423	0.592	1.015
## 52	75	4	1	9	0.278	0.336	0.417	0.753
## 53	162	0	2	7	0.232	0.325	0.467	0.792
## 54	149	0	5	10	0.257	0.363	0.494	0.857
## 55	155	0	2	8	0.259	0.379	0.521	0.900
## 56	129	1	6	3	0.278	0.337	0.535	0.872
## 57	140	6	5	25	0.255	0.326	0.419	0.745
## 58	86	0	9	12	0.319	0.412	0.598	1.010
## 59	145	0	2	15	0.282	0.382	0.521	0.903
## 60	132	0	6	3	0.282	0.401	0.548	0.949
## 61	140	3	5	7	0.266	0.343	0.431	0.774
## 62	143	0	4	10	0.244	0.311	0.460	0.771
## 63	94	2	4	16	0.295	0.342	0.503	0.845
## 64	123	0	8	5	0.275	0.328	0.493	0.821
## 65	156	0	2	0	0.281	0.316	0.531	0.847
## 66	153	3	1	3	0.254	0.317	0.418	0.735
## 67	131	0	0	7	0.291	0.364	0.558	0.922
## 68	155	0	1	6	0.259	0.348	0.476	0.824

##	69	156	0	6	5	0.250	0.339	0.531	0.870
##	70	118	0	7	5	0.277	0.367	0.569	0.936
##	71	127	0	4	3	0.234	0.339	0.403	0.742
##	72	123	0	3	4	0.261	0.357	0.411	0.768
##	73	99	0	4	8	0.252	0.336	0.519	0.855
##	74	50	3	3	4	0.305	0.329	0.422	0.751
##	75	148	0	5	3	0.279	0.348	0.522	0.870
##	76	98	0	2	6	0.254	0.329	0.516	0.845
##	77	178	1	1	5	0.205	0.283	0.439	0.722
##	78	113	0	2	3	0.298	0.353	0.497	0.850
##	79	110	0	3	5	0.251	0.343	0.429	0.772
##	80	139	0	5	5	0.246	0.380	0.468	0.848
##	81	86	0	3	27	0.293	0.405	0.520	0.925
##	82	154	1	3	4	0.315	0.367	0.548	0.915
##	83	141	2	1	11	0.227	0.300	0.335	0.635
##	84	75	0	1	21	0.318	0.384	0.531	0.915
##	85	70	1	2	3	0.288	0.318	0.407	0.725
##	86	66	1	9	0	0.275	0.319	0.409	0.728
##	87	117	0	4	3	0.228	0.304	0.350	0.654
##	88	82	1	3	3	0.298	0.353	0.550	0.903
##	89	109	0	2	3	0.335	0.357	0.508	0.865
##	90	117	7	3	5	0.252	0.318	0.321	0.639
##	91	109	2	6	1	0.223	0.283	0.350	0.633
##	92	155	3	2	12	0.225	0.317	0.421	0.738
##	93	108	0	5	3	0.282	0.346	0.398	0.744
##	94	62	2	1	7	0.308	0.353	0.446	0.799
##	95	68	0	8	3	0.244	0.305	0.430	0.735
##	96	108	0	3	4	0.251	0.325	0.503	0.828
##	97	121	0	3	6	0.314	0.377	0.503	0.880
##	98	125	0	3	7	0.282	0.332	0.464	0.796
##	99	118	0	3	8	0.329	0.429	0.671	1.100
##	100	98	0	4	4	0.272	0.335	0.483	0.818
##	101	149	0	4	8	0.251	0.374	0.515	0.889
##	102	142	1	4	8	0.238	0.346	0.409	0.755
##	103	101	0	3	8	0.260	0.313	0.414	0.727
##	104	114	0	1	1	0.241	0.328	0.472	0.800
##	105	62	1	5	5	0.284	0.331	0.379	0.710
##	106	124	1	5	5	0.251	0.325	0.422	0.747
##	107	138	0	1	12	0.267	0.351	0.545	0.896
##	108	101	3	3	0	0.276	0.320	0.477	0.797
##	109	74	0	6	2	0.255	0.327	0.479	0.806
##	110	146	0	2	3	0.220	0.293	0.387	0.680
##	111	160	1	1	1	0.250	0.329	0.450	0.779
##	112	113	0	4	6	0.292	0.383	0.591	0.974
##	113	88	0	5	14	0.290	0.372	0.509	0.881
##	114	83	6	5	13	0.285	0.361	0.423	0.784
##	115	151	0	5	6	0.283	0.324	0.534	0.858
##	116	69	0	3	4	0.288	0.351	0.416	0.767
##	117	120	0	4	16	0.291	0.438	0.645	1.083
##	118	134	0	2	4	0.267	0.315	0.513	0.828
##	119	117	0	4	3	0.277	0.322	0.429	0.751
##	120	91	0	2	2	0.272	0.339	0.433	0.772
##	121	149	0	2	2	0.208	0.341	0.439	0.780
##	122	114	0	3	14	0.261	0.342	0.468	0.810

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## 123 105 0 3 8 0.285 0.343 0.505 0.848
## 124 75 0 3 8 0.218 0.301 0.410 0.711
## 125 107 0 2 10 0.253 0.311 0.469 0.780
## 126 88 5 6 2 0.245 0.304 0.410 0.714
## 127 147 1 2 5 0.258 0.315 0.474 0.789
## 128 131 0 3 7 0.311 0.392 0.639 1.031
## 129 112 0 5 7 0.254 0.325 0.437 0.762
## 130 164 0 2 2 0.253 0.329 0.441 0.770
## 131 112 1 1 0 0.267 0.299 0.444 0.743
## 132 111 0 2 12 0.249 0.339 0.538 0.877
## 133 106 0 0 12 0.251 0.329 0.443 0.772
## 134 104 1 1 5 0.228 0.278 0.398 0.676
## 135 119 1 2 2 0.255 0.310 0.479 0.789
## 136 87 0 4 5 0.314 0.355 0.534 0.889
## 137 154 0 6 2 0.216 0.289 0.489 0.778
## 138 137 1 0 6 0.273 0.328 0.460 0.788
## 139 74 0 4 2 0.279 0.328 0.452 0.780
## 140 84 7 4 5 0.269 0.318 0.443 0.761
## 141 168 1 1 2 0.239 0.321 0.418 0.739
## 142 123 1 8 11 0.288 0.340 0.521 0.861
## 143 116 0 1 10 0.256 0.304 0.473 0.777
## 144 154 0 2 10 0.262 0.312 0.425 0.737
## 145 108 0 6 6 0.268 0.318 0.469 0.787
## 146 142 0 1 9 0.263 0.378 0.464 0.842
## 147 92 0 3 4 0.278 0.353 0.460 0.813
## 148 100 0 0 0 0.275 0.309 0.415 0.724
## 149 98 0 1 6 0.264 0.322 0.414 0.736
## 150 138 0 2 1 0.248 0.322 0.421 0.743
## 151 91 0 1 5 0.276 0.312 0.416 0.728
## 152 86 0 2 1 0.240 0.334 0.348 0.682
## 153 58 0 5 5 0.270 0.312 0.399 0.711
## 154 113 0 3 1 0.218 0.262 0.380 0.642
## 155 153 0 1 1 0.230 0.306 0.472 0.778
## 156 105 0 1 4 0.238 0.340 0.430 0.770
## 157 129 1 5 7 0.226 0.334 0.392 0.726
## 158 132 3 6 0 0.263 0.291 0.424 0.715
## 159 97 0 4 6 0.237 0.304 0.411 0.715
## 160 59 0 6 2 0.285 0.356 0.420 0.776
## 161 106 0 1 6 0.208 0.342 0.406 0.748
## 162 129 1 3 3 0.262 0.326 0.470 0.796
## 163 108 0 7 6 0.261 0.363 0.459 0.822
## 164 107 0 2 18 0.273 0.396 0.517 0.913
## 165 97 0 2 3 0.307 0.369 0.527 0.896
## 166 71 1 1 4 0.257 0.320 0.368 0.688
## 167 96 0 2 3 0.273 0.328 0.462 0.790
## 168 86 1 2 2 0.230 0.313 0.320 0.633
## 169 37 0 0 2 0.264 0.309 0.364 0.673
## 170 88 3 0 2 0.234 0.304 0.387 0.691
## 171 125 0 1 9 0.232 0.316 0.525 0.841
## 172 140 0 2 10 0.247 0.346 0.505 0.851
## 173 61 3 6 1 0.275 0.304 0.359 0.663
## 174 86 0 2 4 0.239 0.321 0.468 0.789
## 175 136 0 4 4 0.248 0.290 0.435 0.725
## 176 69 0 3 5 0.256 0.307 0.428 0.735

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## 177 127 7 4 4 0.239 0.321 0.452 0.773
## 178 61 0 3 0 0.234 0.297 0.409 0.706
## 179 87 0 1 5 0.275 0.343 0.461 0.804
## 180 110 0 2 5 0.281 0.344 0.446 0.790
## 181 86 1 3 2 0.261 0.297 0.476 0.773
## 182 159 0 1 3 0.247 0.346 0.576 0.922
## 183 51 4 0 1 0.240 0.276 0.325 0.601
## 184 41 1 0 1 0.280 0.313 0.399 0.712
## 185 141 0 1 3 0.272 0.381 0.540 0.921
## 186 58 0 2 8 0.239 0.285 0.346 0.631
## 187 101 0 1 3 0.256 0.315 0.427 0.742
## 188 110 2 5 4 0.302 0.353 0.524 0.877
## 189 89 0 3 5 0.252 0.302 0.475 0.777
## 190 115 0 3 3 0.226 0.312 0.371 0.683
## 191 107 1 3 4 0.272 0.334 0.518 0.852
## 192 116 0 3 7 0.227 0.293 0.449 0.742
## 193 88 1 2 0 0.232 0.306 0.376 0.682
## 194 103 0 6 7 0.233 0.305 0.388 0.693
## 195 115 2 5 4 0.262 0.333 0.462 0.795
## 196 125 2 5 13 0.238 0.347 0.443 0.790
## 197 102 0 2 9 0.272 0.355 0.533 0.888
## 198 68 2 6 8 0.262 0.337 0.329 0.666
## 199 100 8 2 3 0.249 0.325 0.347 0.672
## 200 82 1 4 4 0.241 0.297 0.412 0.709
## 201 84 1 3 3 0.249 0.309 0.412 0.721
## 202 93 1 3 5 0.238 0.321 0.364 0.685
## 203 86 2 4 0 0.291 0.305 0.384 0.689
## 204 123 0 2 2 0.234 0.364 0.429 0.793
## 205 117 1 2 10 0.205 0.314 0.366 0.680
## 206 127 0 0 4 0.254 0.322 0.444 0.766
## 207 79 1 1 4 0.207 0.279 0.360 0.639
## 208 83 3 3 2 0.226 0.313 0.371 0.684
## 209 38 1 4 3 0.235 0.310 0.317 0.627
## 210 49 0 6 2 0.294 0.342 0.475 0.817
## 211 88 1 3 5 0.240 0.290 0.416 0.706
## 212 62 5 2 1 0.236 0.271 0.381 0.652
## 213 60 0 0 8 0.269 0.357 0.473 0.830
## 214 77 0 1 1 0.261 0.344 0.395 0.739
## 215 99 0 1 7 0.203 0.306 0.337 0.643
## 216 82 0 2 2 0.269 0.340 0.410 0.750
## 217 49 0 5 4 0.344 0.395 0.572 0.967
## 218 110 0 3 5 0.317 0.379 0.590 0.969
## 219 108 1 2 7 0.225 0.286 0.383 0.669
## 220 99 0 2 1 0.195 0.281 0.369 0.650
## 221 80 0 6 2 0.263 0.323 0.459 0.782
## 222 29 0 3 1 0.334 0.399 0.439 0.838
## 223 61 0 0 7 0.304 0.350 0.500 0.850
## 224 53 0 2 1 0.238 0.276 0.441 0.717
## 225 85 0 4 3 0.235 0.318 0.393 0.711
## 226 93 0 4 0 0.255 0.314 0.536 0.850
## 227 109 0 1 0 0.210 0.240 0.379 0.619
## 228 98 0 2 3 0.183 0.281 0.356 0.637
## 229 100 0 2 3 0.227 0.325 0.353 0.678
## 230 83 1 1 2 0.231 0.328 0.380 0.708

```

##	231	79	0	1	2	0.245	0.348	0.478	0.826
##	232	63	2	5	6	0.239	0.282	0.411	0.693
##	233	84	0	1	5	0.223	0.316	0.389	0.705
##	234	107	0	1	8	0.303	0.368	0.570	0.938
##	235	86	1	3	5	0.277	0.327	0.541	0.868
##	236	94	0	2	2	0.313	0.412	0.655	1.067
##	237	109	2	1	5	0.176	0.252	0.311	0.563
##	238	83	1	2	5	0.248	0.364	0.354	0.718
##	239	104	0	2	3	0.248	0.337	0.373	0.710
##	240	87	0	2	5	0.273	0.365	0.630	0.995
##	241	115	0	1	2	0.226	0.276	0.465	0.741
##	242	67	0	0	2	0.246	0.294	0.379	0.673
##	243	53	0	2	3	0.269	0.323	0.524	0.847
##	244	74	0	4	7	0.266	0.327	0.468	0.795
##	245	139	0	3	3	0.179	0.276	0.326	0.602
##	246	61	0	4	1	0.267	0.340	0.476	0.816
##	247	73	1	2	4	0.249	0.321	0.420	0.741
##	248	102	0	0	3	0.237	0.293	0.461	0.754
##	249	56	1	3	2	0.241	0.296	0.307	0.603
##	250	93	0	2	7	0.257	0.362	0.422	0.784
##	251	88	2	2	0	0.247	0.302	0.385	0.687
##	252	94	1	1	6	0.235	0.310	0.430	0.740
##	253	74	0	2	1	0.252	0.328	0.507	0.835
##	254	113	0	1	5	0.270	0.336	0.514	0.850
##	255	28	0	0	3	0.295	0.346	0.486	0.832
##	256	95	3	0	6	0.233	0.289	0.411	0.700
##	257	47	3	3	1	0.300	0.363	0.477	0.840
##	258	69	0	2	2	0.297	0.358	0.552	0.910
##	259	83	5	1	6	0.208	0.260	0.322	0.582
##	260	75	0	4	2	0.279	0.358	0.568	0.926
##	261	36	0	3	6	0.264	0.324	0.486	0.810
##	262	53	0	6	2	0.249	0.323	0.412	0.735
##	263	82	0	5	0	0.221	0.252	0.438	0.690
##	264	64	0	2	0	0.304	0.336	0.431	0.767
##	265	74	3	2	0	0.211	0.275	0.269	0.544
##	266	108	0	2	5	0.226	0.279	0.471	0.750
##	267	66	2	2	2	0.288	0.325	0.467	0.792
##	268	59	0	4	3	0.245	0.271	0.381	0.652
##	269	67	2	3	1	0.268	0.313	0.507	0.820
##	270	105	0	2	6	0.229	0.319	0.413	0.732
##	271	68	2	1	2	0.262	0.314	0.513	0.827
##	272	98	0	0	3	0.165	0.232	0.312	0.544
##	273	31	0	1	4	0.317	0.361	0.487	0.848
##	274	48	0	4	1	0.264	0.310	0.456	0.766
##	275	78	0	3	1	0.234	0.278	0.341	0.619
##	276	71	0	1	1	0.277	0.361	0.504	0.865
##	277	87	0	1	1	0.273	0.324	0.535	0.859
##	278	57	0	4	4	0.297	0.369	0.402	0.771
##	279	75	2	1	2	0.213	0.279	0.326	0.605
##	280	54	0	1	3	0.217	0.278	0.368	0.646
##	281	57	0	0	2	0.270	0.310	0.438	0.748
##	282	87	0	4	3	0.219	0.308	0.414	0.722
##	283	73	0	1	6	0.273	0.348	0.406	0.754
##	284	66	0	4	1	0.263	0.314	0.490	0.804

##	285	64	0	1	0	0.249	0.315	0.403	0.718
##	286	73	2	2	2	0.215	0.274	0.422	0.696
##	287	74	0	1	25	0.187	0.328	0.462	0.790
##	288	33	0	0	2	0.265	0.317	0.458	0.775
##	289	93	1	0	9	0.206	0.302	0.389	0.691
##	290	81	0	2	5	0.220	0.314	0.463	0.777
##	291	41	0	3	0	0.233	0.265	0.294	0.559
##	292	59	0	3	3	0.266	0.348	0.447	0.795
##	293	114	1	1	2	0.253	0.389	0.598	0.987
##	294	55	0	3	4	0.241	0.356	0.531	0.887
##	295	39	0	3	4	0.242	0.310	0.371	0.681
##	296	72	0	0	0	0.285	0.364	0.494	0.858
##	297	55	2	1	5	0.227	0.291	0.366	0.657
##	298	47	0	3	8	0.231	0.293	0.340	0.633
##	299	63	1	1	4	0.269	0.342	0.454	0.796
##	300	88	1	1	3	0.232	0.332	0.435	0.767
##	301	78	3	0	4	0.199	0.276	0.343	0.619
##	302	63	0	2	4	0.271	0.331	0.466	0.797
##	303	66	2	1	0	0.228	0.262	0.379	0.641
##	304	43	1	0	0	0.233	0.279	0.384	0.663
##	305	53	4	1	9	0.229	0.290	0.346	0.636
##	306	89	0	0	4	0.157	0.281	0.270	0.551
##	307	74	0	2	3	0.209	0.267	0.417	0.684
##	308	50	1	1	0	0.281	0.310	0.439	0.749
##	309	87	0	1	0	0.158	0.209	0.224	0.433
##	310	56	0	1	2	0.237	0.327	0.408	0.735
##	311	78	1	0	6	0.242	0.304	0.383	0.687
##	312	56	0	1	4	0.265	0.316	0.438	0.754
##	313	74	2	1	6	0.173	0.236	0.221	0.457
##	314	70	0	3	2	0.267	0.317	0.489	0.806
##	315	61	0	1	2	0.276	0.372	0.551	0.923
##	316	68	0	0	4	0.215	0.271	0.372	0.643
##	317	59	0	4	2	0.225	0.320	0.374	0.694
##	318	60	1	0	5	0.266	0.324	0.396	0.720
##	319	72	0	3	0	0.235	0.325	0.443	0.768
##	320	53	0	2	1	0.178	0.275	0.301	0.576
##	321	78	0	5	0	0.215	0.309	0.416	0.725
##	322	55	0	0	0	0.256	0.378	0.457	0.835
##	323	74	0	3	0	0.225	0.320	0.330	0.650
##	324	69	6	2	3	0.221	0.290	0.355	0.645
##	325	58	1	2	3	0.237	0.308	0.391	0.699
##	326	49	0	2	1	0.330	0.360	0.456	0.816
##	327	56	0	0	9	0.223	0.329	0.326	0.655
##	328	44	1	1	22	0.250	0.357	0.340	0.697
##	329	47	0	1	2	0.321	0.356	0.646	1.002
##	330	56	0	2	5	0.203	0.293	0.340	0.633
##	331	28	0	6	5	0.271	0.356	0.467	0.823
##	332	60	0	2	8	0.220	0.337	0.330	0.667
##	333	70	1	1	1	0.202	0.251	0.308	0.559
##	334	59	0	3	1	0.251	0.331	0.411	0.742
##	335	59	0	0	6	0.213	0.312	0.295	0.607
##	336	60	0	2	2	0.259	0.316	0.576	0.892
##	337	60	2	1	6	0.225	0.306	0.363	0.669
##	338	40	2	4	6	0.272	0.349	0.416	0.765

##	339	49	1	1	4	0.238	0.299	0.322	0.621
##	340	24	0	1	0	0.269	0.299	0.413	0.712
##	341	45	0	0	0	0.295	0.408	0.450	0.858
##	342	71	1	3	5	0.221	0.375	0.407	0.782
##	343	41	0	1	4	0.246	0.343	0.397	0.740
##	344	71	0	1	8	0.258	0.351	0.455	0.806
##	345	50	0	1	1	0.311	0.358	0.571	0.929
##	346	40	1	0	2	0.262	0.325	0.382	0.707
##	347	37	0	1	3	0.251	0.318	0.393	0.711
##	348	8	0	4	5	0.268	0.299	0.379	0.678
##	349	41	1	1	3	0.250	0.300	0.447	0.747
##	350	55	0	2	5	0.193	0.323	0.353	0.676
##	351	56	1	0	1	0.215	0.255	0.317	0.572
##	352	49	0	1	7	0.234	0.294	0.402	0.696
##	353	59	0	1	3	0.230	0.279	0.410	0.689
##	354	44	0	1	3	0.297	0.377	0.423	0.800
##	355	59	0	1	2	0.173	0.259	0.307	0.566
##	356	47	1	1	0	0.225	0.261	0.404	0.665
##	357	44	0	0	1	0.282	0.355	0.525	0.880
##	358	48	0	0	3	0.249	0.325	0.531	0.856
##	359	61	6	4	4	0.277	0.362	0.390	0.752
##	360	63	0	3	0	0.237	0.304	0.468	0.772
##	361	60	0	1	1	0.169	0.222	0.395	0.617
##	362	37	0	1	1	0.267	0.298	0.355	0.653
##	363	47	4	1	1	0.192	0.251	0.297	0.548
##	364	39	0	2	0	0.257	0.321	0.415	0.736
##	365	52	0	3	5	0.253	0.337	0.571	0.908
##	366	63	1	1	1	0.225	0.286	0.343	0.629
##	367	40	0	4	1	0.237	0.289	0.456	0.745
##	368	59	0	0	2	0.238	0.333	0.417	0.750
##	369	47	0	2	1	0.214	0.268	0.435	0.703
##	370	57	1	1	0	0.173	0.271	0.250	0.521
##	371	27	1	2	0	0.228	0.243	0.305	0.548
##	372	61	0	0	9	0.210	0.333	0.395	0.728
##	373	30	5	1	3	0.267	0.311	0.315	0.626
##	374	53	0	2	1	0.212	0.283	0.533	0.816
##	375	68	0	0	1	0.207	0.353	0.421	0.774
##	376	29	1	2	4	0.227	0.308	0.417	0.725
##	377	44	0	0	1	0.315	0.403	0.599	1.002
##	378	50	0	1	4	0.228	0.313	0.411	0.724
##	379	31	0	1	3	0.222	0.287	0.342	0.629
##	380	48	0	3	4	0.231	0.328	0.410	0.738
##	381	35	0	1	2	0.290	0.351	0.529	0.880
##	382	49	0	0	1	0.242	0.301	0.425	0.726
##	383	40	0	0	0	0.263	0.333	0.454	0.787
##	384	50	0	2	2	0.263	0.325	0.454	0.779
##	385	52	0	1	1	0.172	0.259	0.364	0.623
##	386	24	0	2	1	0.260	0.358	0.313	0.671
##	387	42	1	0	3	0.250	0.279	0.338	0.617
##	388	29	0	1	2	0.252	0.343	0.327	0.670
##	389	40	1	0	1	0.211	0.266	0.361	0.627
##	390	52	0	0	0	0.211	0.293	0.422	0.715
##	391	29	0	1	0	0.221	0.235	0.510	0.745
##	392	54	0	1	1	0.222	0.311	0.417	0.728

##	393	38	0	0	3	0.229	0.293	0.285	0.578
##	394	44	1	0	1	0.250	0.333	0.347	0.680
##	395	36	0	1	1	0.215	0.274	0.382	0.656
##	396	28	0	0	3	0.259	0.350	0.559	0.909
##	397	36	0	0	1	0.203	0.274	0.322	0.596
##	398	37	3	1	1	0.254	0.301	0.317	0.618
##	399	38	1	0	2	0.197	0.265	0.282	0.547
##	400	33	0	0	1	0.204	0.252	0.359	0.611
##	401	53	0	0	0	0.262	0.311	0.411	0.722
##	402	39	0	1	0	0.264	0.333	0.564	0.897
##	403	41	0	0	1	0.217	0.312	0.312	0.624
##	404	27	0	2	2	0.175	0.218	0.263	0.481
##	405	51	3	0	3	0.213	0.318	0.324	0.642
##	406	37	1	0	0	0.191	0.231	0.316	0.547
##	407	44	1	1	1	0.259	0.294	0.437	0.731
##	408	57	0	3	2	0.170	0.290	0.311	0.601
##	409	55	0	0	2	0.133	0.193	0.222	0.415
##	410	33	0	1	0	0.293	0.307	0.579	0.886
##	411	44	1	4	0	0.211	0.259	0.286	0.545
##	412	42	0	0	2	0.189	0.230	0.371	0.601
##	413	39	1	0	2	0.273	0.319	0.462	0.781
##	414	29	1	0	0	0.252	0.315	0.313	0.628
##	415	57	0	0	0	0.185	0.279	0.400	0.679
##	416	23	0	2	0	0.315	0.373	0.551	0.924
##	417	28	1	1	3	0.238	0.312	0.365	0.677
##	418	33	0	1	1	0.222	0.288	0.341	0.629
##	419	26	0	1	1	0.238	0.317	0.381	0.698
##	420	18	0	3	0	0.323	0.404	0.565	0.969
##	421	28	3	0	2	0.197	0.258	0.230	0.488
##	422	39	0	1	2	0.267	0.315	0.567	0.882
##	423	27	1	2	0	0.258	0.272	0.383	0.655
##	424	33	2	0	0	0.151	0.205	0.235	0.440
##	425	35	0	0	1	0.263	0.331	0.610	0.941
##	426	33	0	0	3	0.203	0.304	0.347	0.651
##	427	29	0	0	4	0.293	0.393	0.491	0.884
##	428	21	1	1	1	0.278	0.344	0.435	0.779
##	429	41	4	1	3	0.223	0.348	0.375	0.723
##	430	51	2	0	1	0.125	0.222	0.259	0.481
##	431	29	0	1	1	0.270	0.359	0.360	0.719
##	432	16	0	0	1	0.266	0.328	0.404	0.732
##	433	31	1	0	4	0.193	0.279	0.248	0.527
##	434	20	0	1	3	0.204	0.310	0.259	0.569
##	435	34	1	0	1	0.213	0.298	0.370	0.668
##	436	24	1	0	0	0.269	0.378	0.343	0.721
##	437	33	0	1	1	0.234	0.284	0.411	0.695
##	438	43	0	0	2	0.151	0.196	0.245	0.441
##	439	27	1	0	2	0.200	0.288	0.314	0.602
##	440	33	0	1	1	0.210	0.282	0.276	0.558
##	441	32	0	2	1	0.171	0.252	0.324	0.576
##	442	19	0	0	0	0.279	0.312	0.442	0.754
##	443	49	1	0	0	0.204	0.261	0.350	0.611
##	444	24	0	1	1	0.220	0.269	0.330	0.599
##	445	34	1	1	2	0.230	0.284	0.340	0.624
##	446	18	0	0	0	0.299	0.346	0.526	0.872

##	447	16	0	3	2	0.124	0.178	0.144	0.322
##	448	21	0	1	0	0.206	0.257	0.237	0.494
##	449	36	1	0	0	0.232	0.277	0.358	0.635
##	450	9	1	0	1	0.277	0.333	0.404	0.737
##	451	28	2	0	1	0.245	0.330	0.362	0.692
##	452	43	0	0	0	0.161	0.271	0.376	0.647
##	453	22	0	3	0	0.261	0.336	0.424	0.760
##	454	34	0	0	1	0.167	0.235	0.211	0.446
##	455	31	0	1	1	0.180	0.245	0.258	0.503
##	456	22	0	0	0	0.205	0.271	0.307	0.578
##	457	34	2	0	0	0.250	0.305	0.364	0.669
##	458	30	2	1	3	0.198	0.278	0.337	0.615
##	459	18	0	1	2	0.198	0.278	0.267	0.545
##	460	39	0	0	1	0.186	0.307	0.349	0.656
##	461	35	0	0	1	0.107	0.194	0.179	0.373
##	462	26	0	0	1	0.202	0.316	0.464	0.780
##	463	30	1	0	5	0.179	0.281	0.238	0.519
##	464	29	1	0	0	0.202	0.280	0.274	0.554
##	465	15	0	0	0	0.193	0.239	0.253	0.492
##	466	24	1	1	5	0.181	0.266	0.265	0.531
##	467	21	0	1	1	0.244	0.344	0.317	0.661
##	468	18	0	2	2	0.183	0.258	0.305	0.563
##	469	27	0	0	0	0.123	0.253	0.222	0.475
##	470	34	0	0	0	0.190	0.256	0.316	0.572
##	471	35	0	0	2	0.203	0.276	0.329	0.605
##	472	11	0	1	0	0.282	0.305	0.436	0.741
##	473	19	0	1	1	0.218	0.303	0.385	0.688
##	474	23	0	0	1	0.273	0.356	0.649	1.005
##	475	26	0	0	1	0.182	0.276	0.299	0.575
##	476	27	0	0	1	0.224	0.272	0.250	0.522
##	477	25	0	0	1	0.293	0.361	0.360	0.721
##	478	31	3	0	0	0.160	0.213	0.347	0.560
##	479	20	0	0	1	0.213	0.306	0.373	0.679
##	480	24	0	0	0	0.240	0.305	0.400	0.705
##	481	23	0	0	1	0.293	0.361	0.453	0.814
##	482	23	3	0	1	0.243	0.273	0.324	0.597
##	483	22	0	0	0	0.178	0.286	0.274	0.560
##	484	16	1	0	0	0.205	0.247	0.315	0.562
##	485	17	0	0	1	0.260	0.357	0.479	0.836
##	486	24	0	1	0	0.260	0.304	0.356	0.660
##	487	35	0	1	0	0.208	0.275	0.500	0.775
##	488	31	0	1	0	0.208	0.275	0.236	0.511
##	489	28	0	1	2	0.211	0.269	0.521	0.790
##	490	29	0	1	0	0.268	0.293	0.592	0.885
##	491	14	1	0	0	0.214	0.247	0.271	0.518
##	492	18	0	0	1	0.200	0.233	0.357	0.590
##	493	20	0	1	1	0.217	0.236	0.261	0.497
##	494	18	0	0	4	0.232	0.346	0.362	0.708
##	495	13	0	0	0	0.309	0.373	0.574	0.947
##	496	20	0	0	1	0.269	0.319	0.537	0.856
##	497	29	0	0	0	0.136	0.186	0.273	0.459
##	498	16	0	0	0	0.262	0.294	0.308	0.602
##	499	26	0	0	1	0.123	0.197	0.215	0.412
##	500	23	2	2	0	0.138	0.247	0.262	0.509

##	501	21	0	0	0	0.215	0.282	0.277	0.559
##	502	21	0	1	1	0.234	0.254	0.391	0.645
##	503	15	1	0	1	0.250	0.294	0.438	0.732
##	504	14	2	1	3	0.094	0.181	0.156	0.337
##	505	16	0	0	0	0.156	0.169	0.328	0.497
##	506	25	0	0	1	0.206	0.265	0.286	0.551
##	507	28	1	0	0	0.177	0.250	0.419	0.669
##	508	6	0	0	1	0.177	0.320	0.242	0.562
##	509	13	0	0	1	0.210	0.269	0.242	0.511
##	510	15	0	1	2	0.328	0.400	0.639	1.039
##	511	14	2	0	0	0.246	0.324	0.361	0.685
##	512	19	0	1	0	0.200	0.210	0.283	0.493
##	513	20	0	0	0	0.183	0.258	0.217	0.475
##	514	24	0	1	0	0.288	0.403	0.492	0.895
##	515	23	0	0	0	0.123	0.138	0.263	0.401
##	516	21	1	0	0	0.107	0.153	0.107	0.260
##	517	14	0	0	0	0.196	0.274	0.304	0.578
##	518	9	0	0	2	0.196	0.348	0.375	0.723
##	519	19	0	1	0	0.250	0.295	0.304	0.599
##	520	26	0	1	0	0.214	0.211	0.464	0.675
##	521	18	1	1	2	0.196	0.270	0.357	0.627
##	522	20	0	0	0	0.218	0.232	0.400	0.632
##	523	17	0	0	0	0.167	0.167	0.185	0.352
##	524	17	0	0	0	0.259	0.298	0.389	0.687
##	525	12	0	0	1	0.189	0.283	0.283	0.566
##	526	14	0	0	0	0.226	0.317	0.358	0.675
##	527	14	0	0	1	0.226	0.293	0.377	0.670
##	528	16	0	0	1	0.245	0.333	0.566	0.899
##	529	33	0	2	1	0.115	0.238	0.231	0.469
##	530	18	0	0	1	0.118	0.211	0.196	0.407
##	531	18	0	0	1	0.275	0.362	0.353	0.715
##	532	18	1	0	1	0.220	0.304	0.380	0.684
##	533	17	0	0	0	0.280	0.333	0.380	0.713
##	534	19	1	0	0	0.102	0.120	0.163	0.283
##	535	22	0	0	0	0.143	0.208	0.163	0.371
##	536	14	2	1	0	0.143	0.218	0.245	0.463
##	537	17	0	0	0	0.184	0.298	0.327	0.625
##	538	12	0	0	0	0.250	0.333	0.375	0.708
##	539	19	0	0	0	0.250	0.321	0.521	0.842
##	540	21	0	0	0	0.277	0.393	0.617	1.010
##	541	10	1	0	1	0.213	0.339	0.255	0.594
##	542	8	0	0	0	0.213	0.245	0.234	0.479
##	543	11	0	1	0	0.128	0.143	0.128	0.271
##	544	19	0	0	1	0.217	0.345	0.326	0.671
##	545	20	0	0	0	0.178	0.245	0.356	0.601
##	546	23	0	0	0	0.156	0.255	0.267	0.522
##	547	11	1	0	0	0.091	0.130	0.114	0.244
##	548	15	0	1	0	0.091	0.109	0.114	0.223
##	549	21	0	1	0	0.136	0.204	0.205	0.409
##	550	14	0	0	1	0.227	0.277	0.318	0.595
##	551	17	0	1	1	0.163	0.229	0.163	0.392
##	552	14	1	1	0	0.163	0.229	0.233	0.462
##	553	15	0	2	0	0.071	0.163	0.071	0.234
##	554	19	0	0	1	0.167	0.255	0.262	0.517

##	555	21	0	0	0	0.143	0.217	0.310	0.527
##	556	23	0	0	0	0.190	0.292	0.333	0.625
##	557	17	0	2	0	0.167	0.260	0.190	0.450
##	558	11	0	0	2	0.167	0.255	0.238	0.493
##	559	17	0	0	2	0.190	0.292	0.429	0.721
##	560	24	1	1	0	0.049	0.149	0.073	0.222
##	561	13	0	0	0	0.268	0.375	0.317	0.692
##	562	8	0	0	6	0.390	0.500	0.683	1.183
##	563	19	0	1	0	0.175	0.306	0.300	0.606
##	564	7	0	0	0	0.350	0.381	0.425	0.806
##	565	14	0	0	1	0.150	0.171	0.200	0.371
##	566	16	0	0	0	0.128	0.209	0.282	0.491
##	567	11	0	0	0	0.308	0.325	0.462	0.787
##	568	17	0	0	0	0.077	0.163	0.128	0.291
##	569	17	0	1	0	0.179	0.233	0.410	0.643
##	570	12	0	1	0	0.205	0.256	0.410	0.666
##	571	10	1	0	1	0.211	0.250	0.263	0.513
##	572	8	0	0	2	0.316	0.409	0.684	1.093
##	573	5	0	1	0	0.189	0.225	0.324	0.549
##	574	10	0	0	0	0.139	0.205	0.167	0.372
##	575	10	0	0	0	0.250	0.325	0.417	0.742
##	576	16	0	0	0	0.250	0.325	0.333	0.658
##	577	14	0	2	2	0.250	0.420	0.361	0.781
##	578	19	0	1	4	0.139	0.304	0.222	0.526
##	579	10	0	0	0	0.250	0.325	0.306	0.631
##	580	7	0	0	0	0.200	0.282	0.286	0.568
##	581	16	0	0	0	0.171	0.293	0.257	0.550
##	582	10	0	0	0	0.200	0.263	0.400	0.663
##	583	6	0	0	2	0.125	0.222	0.281	0.503
##	584	10	0	0	1	0.281	0.378	0.688	1.066
##	585	5	0	0	1	0.219	0.324	0.313	0.637
##	586	16	1	0	0	0.125	0.176	0.250	0.426
##	587	8	0	0	0	0.290	0.421	0.548	0.969
##	588	15	0	1	1	0.129	0.200	0.258	0.458
##	589	10	0	0	0	0.226	0.250	0.226	0.476
##	590	6	0	1	0	0.267	0.324	0.300	0.624
##	591	11	0	0	1	0.367	0.486	0.467	0.953
##	592	9	0	0	0	0.233	0.303	0.500	0.803
##	593	9	0	0	0	0.034	0.067	0.069	0.136
##	594	5	0	0	0	0.172	0.226	0.276	0.502
##	595	11	0	0	1	0.179	0.233	0.286	0.519
##	596	15	1	0	0	0.154	0.185	0.192	0.377
##	597	7	0	0	1	0.231	0.310	0.385	0.695
##	598	7	0	0	0	0.160	0.192	0.280	0.472
##	599	5	0	0	0	0.200	0.231	0.400	0.631
##	600	9	0	1	0	0.280	0.367	0.440	0.807
##	601	15	0	0	0	0.042	0.115	0.083	0.198
##	602	11	0	0	0	0.208	0.240	0.375	0.615
##	603	6	0	0	1	0.174	0.321	0.435	0.756
##	604	9	0	0	0	0.217	0.280	0.217	0.497
##	605	5	0	0	0	0.087	0.160	0.087	0.247
##	606	5	0	0	0	0.217	0.308	0.478	0.786
##	607	11	0	0	0	0.000	0.080	0.000	0.080
##	608	8	0	0	0	0.318	0.375	0.364	0.739

## 609	4	0	0	0	0.182	0.250	0.182	0.432
## 610	4	0	0	0	0.045	0.192	0.045	0.237
## 611	7	0	1	0	0.227	0.333	0.273	0.606
## 612	7	1	0	0	0.143	0.143	0.238	0.381
## 613	2	0	0	0	0.100	0.143	0.100	0.243
## 614	6	0	0	0	0.200	0.273	0.300	0.573
## 615	7	0	0	0	0.350	0.381	0.500	0.881
## 616	7	0	1	0	0.200	0.370	0.450	0.820
## 617	4	0	0	1	0.300	0.391	0.500	0.891
## 618	7	0	0	0	0.158	0.158	0.158	0.316
## 619	5	0	0	0	0.278	0.316	0.722	1.038
## 620	8	0	0	0	0.056	0.150	0.056	0.206
## 621	4	0	0	0	0.222	0.222	0.222	0.444
## 622	4	0	0	0	0.167	0.250	0.333	0.583
## 623	3	0	0	0	0.176	0.176	0.235	0.411
## 624	4	0	0	0	0.294	0.368	0.588	0.956
## 625	4	0	0	0	0.235	0.316	0.471	0.787
## 626	8	0	0	0	0.059	0.059	0.059	0.118
## 627	4	0	0	0	0.235	0.350	0.412	0.762
## 628	6	0	0	0	0.063	0.118	0.063	0.181
## 629	3	0	1	0	0.063	0.059	0.063	0.122
## 630	3	0	0	1	0.188	0.235	0.188	0.423
## 631	8	0	0	0	0.063	0.118	0.250	0.368
## 632	5	0	0	0	0.188	0.316	0.188	0.504
## 633	2	0	0	0	0.067	0.067	0.067	0.134
## 634	2	0	0	0	0.267	0.267	0.533	0.800
## 635	5	0	0	0	0.067	0.125	0.067	0.192
## 636	2	0	0	1	0.133	0.278	0.133	0.411
## 637	7	0	1	0	0.333	0.450	0.400	0.850
## 638	7	0	0	0	0.133	0.133	0.133	0.266
## 639	5	0	0	0	0.214	0.214	0.214	0.428
## 640	6	0	0	0	0.214	0.313	0.286	0.599
## 641	6	0	0	0	0.143	0.250	0.214	0.464
## 642	5	0	0	0	0.077	0.250	0.077	0.327
## 643	5	0	0	1	0.000	0.133	0.000	0.133
## 644	7	0	0	0	0.000	0.071	0.000	0.071
## 645	6	0	0	0	0.083	0.083	0.167	0.250
## 646	8	0	0	0	0.000	0.200	0.000	0.200
## 647	9	0	0	0	0.083	0.083	0.083	0.166
## 648	4	0	0	0	0.167	0.231	0.250	0.481
## 649	5	0	0	0	0.091	0.091	0.091	0.182
## 650	5	0	0	0	0.091	0.231	0.364	0.595
## 651	1	0	0	0	0.182	0.182	0.273	0.455
## 652	4	0	0	0	0.182	0.308	0.545	0.853
## 653	7	0	0	0	0.091	0.167	0.182	0.349
## 654	4	1	0	0	0.273	0.273	0.636	0.909
## 655	5	0	0	0	0.000	0.154	0.000	0.154
## 656	1	0	0	1	0.400	0.500	0.600	1.100
## 657	3	0	0	0	0.100	0.182	0.200	0.382
## 658	6	0	0	0	0.200	0.200	0.300	0.500
## 659	3	0	0	0	0.000	0.000	0.000	0.000
## 660	2	0	0	0	0.111	0.111	0.222	0.333
## 661	6	0	0	0	0.000	0.000	0.000	0.000
## 662	2	0	0	1	0.250	0.400	0.250	0.650

```

## 663  3  0  0  0  0.143  0.143  0.286  0.429
## 664  4  0  0  0  0.000  0.125  0.000  0.125
## 665  3  0  0  0  0.143  0.143  0.143  0.286
## 666  3  0  0  0  0.286  0.375  0.286  0.661
## 667  0  0  0  2  0.500  0.625  0.500  1.125
## 668  2  0  0  1  0.333  0.429  0.833  1.262
## 669  3  0  0  0  0.167  0.167  0.167  0.334
## 670  3  0  0  0  0.000  0.000  0.000  0.000
## 671  3  0  0  0  0.000  0.000  0.000  0.000
## 672  3  0  0  0  0.000  0.000  0.000  0.000
## 673  3  0  0  0  0.000  0.000  0.000  0.000
## 674  1  0  0  0  0.000  0.167  0.000  0.167
## 675  2  0  0  0  0.400  0.400  0.600  1.000
## 676  2  0  0  0  0.250  0.250  0.750  1.000
## 677  3  0  0  0  0.000  0.000  0.000  0.000
## 678  3  0  0  0  0.250  0.400  0.500  0.900
## 679  1  0  0  0  0.000  0.000  0.000  0.000
## 680  1  0  0  0  0.000  0.250  0.000  0.250
## 681  1  0  0  0  0.000  0.000  0.000  0.000
## 682  0  0  1  0  0.000  0.250  0.000  0.250
## 683  1  0  0  0  0.000  0.000  0.000  0.000
## 684  2  0  0  0  0.000  0.000  0.000  0.000
## 685  0  0  0  0  0.000  0.000  0.000  0.000
## 686  0  0  0  0  0.000  0.000  0.000  0.000
## 687  1  0  0  0  0.000  0.000  0.000  0.000
## 688  0  0  0  0  0.000  0.000  0.000  0.000
## 689  0  0  0  0  0.000  0.000  0.000  0.000
## 690  0  0  0  0  0.000  0.000  0.000  0.000
## 691  1  0  0  0  0.000  0.000  0.000  0.000
## 692  1  0  0  0  0.000  0.000  0.000  0.000
## 693  0  0  0  0  0.000  0.000  0.000  0.000

```

Things to look out for!

As a good data scientist, we always want to have a sense of what the data set or our data frame contains. Before we analyze, its a good practice to have a broad idea of the shape or value our data contains.

Reflection Question

Question: How many rows and columns does our data set have? Type out the answer in the format **m** rows and **n** columns.

Answer: (Student Response Here) 693 rows and 23 columns.

Think About...

What the column names represent and how it might us help answer some questions? Discuss this with your group and write at least three sentences about what your group discussed.

Type Response Here

Problem 2

Part 1: Summary

Now that we have imported the data set and have a very general idea of what it looks like. Let's get a more elaborate summary of our data. In the below cell, find the summary of our data set.

```
summary(MLB_Batters)
```

```
##           Player      Team    Pos      Age      G
## Aaron Altherr   : 3    SF      : 32    1B: 78    Min.    :21.00    Min.    : 1.00
## Corban Joseph   : 3    SEA      : 27    2B:120    1st Qu.:26.00    1st Qu.: 25.00
## Keon Broxton    : 3    CLE      : 26    3B: 55    Median :28.00    Median : 69.00
## Martin Maldonado: 3    LAA      : 26    C :123    Mean   :28.59    Mean   : 72.27
## Travis d'Arnaud : 3    TB       : 26    DH: 12    3rd Qu.:31.00    3rd Qu.:120.00
## Tyler Austin    : 3    MIA      : 25    OF:246    Max.   :46.00    Max.   :162.00
## (Other)         :675    (Other):531    SS: 59
##           AB           R           H           X2B
## Min.    : 1.0    Min.    : 0.00    Min.    : 0.00    Min.    : 0.00
## 1st Qu.: 56.0    1st Qu.: 6.00    1st Qu.: 12.00    1st Qu.: 2.00
## Median :191.0    Median : 25.00    Median : 44.00    Median : 9.00
## Mean   :233.3    Mean   : 33.43    Mean   : 59.66    Mean   :12.17
## 3rd Qu.:393.0    3rd Qu.: 54.00    3rd Qu.: 99.00    3rd Qu.:20.00
## Max.   :681.0    Max.   :135.00    Max.   :206.00    Max.   :54.00
##
##           X3B           HR           RBI           SB
## Min.    : 0.00    Min.    : 0.0000    Min.    : 0    Min.    : 0.00
## 1st Qu.: 0.00    1st Qu.: 1.000    1st Qu.: 5    1st Qu.: 0.00
## Median : 0.00    Median : 6.000    Median : 23    Median : 1.00
## Mean   : 1.12    Mean   : 9.717    Mean   : 32    Mean   : 3.26
## 3rd Qu.: 2.00    3rd Qu.:15.000    3rd Qu.: 53    3rd Qu.: 4.00
## Max.   :10.00    Max.   :53.000    Max.   :126    Max.   :46.00
##
##           CS           BB           SO           SH
## Min.    : 0.0000    Min.    : 0.00    Min.    : 0.00    Min.    : 0.0000
## 1st Qu.: 0.0000    1st Qu.: 4.00    1st Qu.: 18.00    1st Qu.: 0.0000
## Median : 0.0000    Median : 16.00    Median : 49.00    Median : 0.0000
## Mean   : 1.189    Mean   : 22.66    Mean   : 58.39    Mean   : 0.4935
## 3rd Qu.: 2.000    3rd Qu.: 35.00    3rd Qu.: 93.00    3rd Qu.: 1.0000
## Max.   :10.000    Max.   :119.00    Max.   :189.00    Max.   :11.0000
##
##           SF           HBP           AVG           OBP
## Min.    : 0.0000    Min.    : 0.0000    Min.    :0.0000    Min.    :0.0000
## 1st Qu.: 0.0000    1st Qu.: 0.000    1st Qu.:0.2000    1st Qu.:0.2690
## Median : 1.000    Median : 2.000    Median :0.2390    Median :0.3120
## Mean   : 1.642    Mean   : 2.843    Mean   :0.2243    Mean   :0.2931
## 3rd Qu.: 3.000    3rd Qu.: 4.000    3rd Qu.:0.2690    3rd Qu.:0.3420
## Max.   :12.000    Max.   :27.000    Max.   :0.5000    Max.   :0.6250
##
##           SLG           OPS
## Min.    :0.0000    Min.    :0.0000
## 1st Qu.:0.3120    1st Qu.:0.5950
## Median :0.4020    Median :0.7150
## Mean   :0.3796    Mean   :0.6727
```

```
## 3rd Qu.:0.4680 3rd Qu.:0.8040
## Max. :0.8330 Max. :1.2620
##
```

Whoa!!! Now that's a lot of information for Abhi to figure out! He is not good with numbers, can you help him out? Are there any ways we can filter some categories out?

Part 2: Helping Abhi Out...

Abhi usually likes looking at how **old** people are, don't ask why! Is there anyway we could filter out the Players and Ages from the data set and just show that? (Hint: The answer is yes, we can.)

```
MLB_Batters %>% select(c("Player", "Age"))
```

```
##           Player Age
## 1    Whit Merrifield 31
## 2      Marcus Semien 29
## 3    Rafael Devers 23
## 4   Jonathan Villar 28
## 5      Ozzie Albies 23
## 6   Eduardo Escobar 31
## 7    Starlin Castro 30
## 8      Jose Abreu 33
## 9    Jorge Polanco 26
## 10   Ronald Acuna 22
## 11    Eric Hosmer 30
## 12    Amed Rosario 24
## 13   Xander Bogaerts 27
## 14   Cesar Hernandez 29
## 15      DJ LeMahieu 31
## 16      Trey Mancini 28
## 17    Elvis Andrus 31
## 18   Francisco Lindor 26
## 19   Paul Goldschmidt 32
## 20   Freddie Freeman 30
## 21    Mookie Betts 27
## 22      Pete Alonso 25
## 23   David Fletcher 25
## 24      Kevin Pillar 31
## 25      Jorge Soler 28
## 26    Trevor Story 27
## 27    Nolan Arenado 28
## 28    Manny Machado 27
## 29   Randal Grichuk 28
## 30      Paul DeJong 26
## 31      Matt Chapman 26
## 32   Charlie Blackmon 33
## 33    Leury Garcia 29
## 34      Jean Segura 30
## 35     J.D. Martinez 32
## 36   Michael Brantley 32
## 37    Eugenio Suarez 28
## 38    Carlos Santana 33
```

## 39	Bryce Harper	27
## 40	Rhys Hoskins	27
## 41	Ketel Marte	26
## 42	Tommy Pham	32
## 43	Adam Eaton	31
## 44	Yuli Gurriel	35
## 45	Shin-Soo Choo	37
## 46	Lorenzo Cain	33
## 47	Eddie Rosario	28
## 48	Cody Bellinger	24
## 49	Nick Ahmed	30
## 50	Alex Gordon	36
## 51	Alex Bregman	25
## 52	Adam Frazier	28
## 53	Kole Calhoun	32
## 54	Michael Conforto	27
## 55	Josh Donaldson	34
## 56	Gleyber Torres	23
## 57	Victor Robles	22
## 58	Anthony Rendon	29
## 59	Kris Bryant	28
## 60	Juan Soto	21
## 61	Andrew Benintendi	25
## 62	Renato Nunez	25
## 63	Starling Marte	31
## 64	J.T. Realmuto	29
## 65	Javier Baez	27
## 66	Willy Adames	24
## 67	Austin Meadows	24
## 68	Christian Walker	29
## 69	Kyle Schwarber	27
## 70	Josh Bell	27
## 71	Brandon Belt	31
## 72	Joey Votto	36
## 73	Max Kepler	27
## 74	Hanser Alberto	27
## 75	Hunter Dozier	28
## 76	Mike Moustakas	31
## 77	Rougned Odor	26
## 78	Trea Turner	26
## 79	Jason Heyward	30
## 80	Yasmani Grandal	31
## 81	Anthony Rizzo	30
## 82	Yoan Moncada	24
## 83	Mallex Smith	26
## 84	Jeff McNeil	27
## 85	Jose Iglesias	30
## 86	Josh Reddick	33
## 87	Brandon Crawford	33
## 88	Jose Altuve	29
## 89	Tim Anderson	26
## 90	Yolmer Sanchez	27
## 91	Orlando Arcia	25
## 92	Jackie Bradley	29

## 93	Miguel Cabrera	36
## 94	Kevin Newman	26
## 95	Albert Pujols	40
## 96	Brett Gardner	36
## 97	Bryan Reynolds	25
## 98	Avisail Garcia	28
## 99	Christian Yelich	28
## 100	Corey Seager	25
## 101	Max Muncy	29
## 102	Dexter Fowler	34
## 103	Adam Jones	34
## 104	Marcell Ozuna	29
## 105	Miguel Rojas	31
## 106	Dansby Swanson	26
## 107	Matt Olson	25
## 108	Christian Vazquez	29
## 109	Jose Ramirez	27
## 110	Khris Davis	32
## 111	Ryan McMahon	25
## 112	George Springer	30
## 113	Justin Turner	35
## 114	Kolten Wong	29
## 115	Danny Santana	29
## 116	Wilson Ramos	32
## 117	Mike Trout	28
## 118	Eloy Jimenez	23
## 119	Colin Moran	27
## 120	Vladimir Guerrero	21
## 121	Daniel Vogelbach	27
## 122	Brian Anderson	26
## 123	Ryan Braun	36
## 124	Jurickson Profar	27
## 125	C.J. Cron	30
## 126	Jason Kipnis	32
## 127	Scott Kingery	25
## 128	Nelson Cruz	39
## 129	Evan Longoria	34
## 130	Domingo Santana	27
## 131	Freddy Galvis	30
## 132	Joc Pederson	27
## 133	Todd Frazier	34
## 134	Kevin Kiermaier	29
## 135	Ian Desmond	34
## 136	Gio Urshela	28
## 137	Hunter Renfroe	28
## 138	James McCann	29
## 139	Daniel Murphy	34
## 140	Oscar Mercado	25
## 141	Wil Myers	29
## 142	Ramon Laureano	25
## 143	Jonathan Schoop	28
## 144	Jorge Alfaro	26
## 145	Nomar Mazara	24
## 146	Luke Voit	29

## 147	Omar Narvaez	28
## 148	Raimel Tapia	26
## 149	Marwin Gonzalez	31
## 150	Niko Goodrum	28
## 151	Harold Ramirez	25
## 152	Robbie Grossman	30
## 153	Yadier Molina	37
## 154	Brandon Drury	27
## 155	Teoscar Hernandez	27
## 156	Brian Dozier	32
## 157	Matt Carpenter	34
## 158	Adalberto Mondesi	24
## 159	Enrique Hernandez	28
## 160	Nick Markakis	36
## 161	Justin Smoak	33
## 162	Brian Goodwin	29
## 163	Ji-Man Choi	28
## 164	Mark Canha	31
## 165	J.D. Davis	26
## 166	Buster Posey	33
## 167	Nick Castellanos	28
## 168	Jarrold Dyson	35
## 169	Andrelton Simmons	30
## 170	Manuel Margot	25
## 171	Gary Sanchez	27
## 172	Eric Thames	33
## 173	Dee Gordon	31
## 174	Kyle Seager	32
## 175	Brandon Dixon	28
## 176	Robinson Cano	37
## 177	Roberto Perez	31
## 178	Maikel Franco	27
## 179	David Peralta	32
## 180	Garrett Cooper	29
## 181	Anthony Santander	25
## 182	Miguel Sano	26
## 183	Nicky Lopez	25
## 184	Melky Cabrera	35
## 185	Aaron Judge	27
## 186	Jose Peraza	25
## 187	Nick Senzel	24
## 188	David Dahl	25
## 189	Yasiel Puig	29
## 190	Jake Bauers	24
## 191	Mike Yastrzemski	29
## 192	Rowdy Tellez	25
## 193	Rio Ruiz	25
## 194	Christin Stewart	26
## 195	Chris Taylor	29
## 196	Robinson Chirinos	35
## 197	Willson Contreras	27
## 198	Tony Wolters	27
## 199	Delino DeShields	27
## 200	Dwight Smith	27

## 201	Stephen Piscotty	29
## 202	Luis Rengifo	23
## 203	Harold Castro	26
## 204	Cavan Biggio	24
## 205	Harrison Bader	25
## 206	Michael Chavis	24
## 207	Danny Jansen	24
## 208	J.P. Crawford	25
## 209	Joe Panik	29
## 210	Alex Verdugo	23
## 211	Chad Pinder	27
## 212	Albert Almora	25
## 213	Jesse Winker	26
## 214	Neil Walker	34
## 215	Jeimer Candelario	26
## 216	Jose Martinez	31
## 217	Howie Kendrick	36
## 218	Fernando Tatis	21
## 219	Stevie Wilkerson	28
## 220	Ryan O'Hearn	26
## 221	Travis d'Arnaud	31
## 222	Luis Arraez	22
## 223	Tommy Edman	24
## 224	Didi Gregorius	30
## 225	Asdrubal Cabrera	34
## 226	Franmil Reyes	24
## 227	John Hicks	30
## 228	Curtis Granderson	39
## 229	Logan Forsythe	33
## 230	Tucker Barnhart	29
## 231	Carson Kelly	25
## 232	Josh Phegley	32
## 233	Yan Gomes	32
## 234	Keston Hiura	23
## 235	Lourdes Gurriel	26
## 236	Yordan Alvarez	22
## 237	Austin Hedges	27
## 238	Greg Garcia	30
## 239	Ben Gamel	27
## 240	Mitch Garver	29
## 241	Matt Adams	31
## 242	Cheslor Cuthbert	27
## 243	Willie Calhoun	25
## 244	A.J. Pollock	32
## 245	Chris Davis	34
## 246	Yandy Diaz	28
## 247	Pedro Severino	26
## 248	Tim Beckham	30
## 249	Elias Diaz	29
## 250	David Bote	26
## 251	Garrett Hampson	25
## 252	JaCoby Jones	27
## 253	Mitch Moreland	34
## 254	Brandon Lowe	25

## 255	Tommy La Stella	31
## 256	Jake Marisnick	28
## 257	Eric Sogard	33
## 258	Hunter Pence	36
## 259	Richie Martin	25
## 260	Carlos Correa	25
## 261	Kurt Suzuki	36
## 262	Brian McCann	36
## 263	Ronny Rodriguez	27
## 264	Victor Reyes	25
## 265	Billy Hamilton	29
## 266	Austin Riley	22
## 267	Tyler Naquin	28
## 268	Dawel Lugo	25
## 269	Pablo Sandoval	33
## 270	Tyler Flowers	34
## 271	Byron Buxton	26
## 272	Mike Zunino	29
## 273	Wilmer Flores	28
## 274	Jose Osuna	27
## 275	Steven Duggar	26
## 276	Mike Tauchman	29
## 277	Tom Murphy	28
## 278	Brock Holt	31
## 279	Juan Lagares	31
## 280	Ian Kinsler	37
## 281	Jordy Mercer	33
## 282	Ronald Guzman	25
## 283	Jon Berti	30
## 284	Stephen Vogt	35
## 285	Josh Naylor	22
## 286	Billy McKinney	25
## 287	Derek Dietrich	30
## 288	Matt Beaty	26
## 289	Dylan Moore	27
## 290	Mitch Haniger	29
## 291	Martin Prado	36
## 292	Victor Caratini	26
## 293	Joey Gallo	26
## 294	Edwin Encarnacion	37
## 295	Jonathan Lucroy	33
## 296	Cameron Maybin	32
## 297	Martin Maldonado	33
## 298	Joey Wendle	29
## 299	Austin Nola	30
## 300	Jason Castro	32
## 301	Leonys Martin	32
## 302	Phillip Ervin	27
## 303	Hernan Perez	29
## 304	Johan Camargo	26
## 305	Greg Allen	27
## 306	Travis Shaw	29
## 307	Wellington Castillo	32
## 308	Austin Romine	31

## 309	Jeff Mathis	36
## 310	Josh VanMeter	25
## 311	Adam Engel	28
## 312	Francisco Mejia	24
## 313	Lewis Brinson	25
## 314	Clint Frazier	25
## 315	Jordan Luplow	26
## 316	Gordon Beckham	33
## 317	Jesus Aguilar	29
## 318	Adam Haseley	23
## 319	Aaron Hicks	30
## 320	Yonder Alonso	32
## 321	Justin Upton	32
## 322	Andrew McCutchen	33
## 323	Tyler White	29
## 324	Ryan Cordell	27
## 325	Addison Russell	26
## 326	Donovan Solano	32
## 327	Luis Urias	22
## 328	Tim Locastro	27
## 329	Nick Castellanos	28
## 330	Austin Barnes	30
## 331	Aledmys Diaz	29
## 332	Russell Martin	37
## 333	Grayson Greiner	27
## 334	Curt Casali	31
## 335	Daniel Robertson	26
## 336	Aristides Aquino	25
## 337	Guillermo Heredia	29
## 338	Ehire Adrianza	30
## 339	Isiah Kiner-Falefa	25
## 340	Ildemaro Vargas	28
## 341	Matt Joyce	35
## 342	Brandon Nimmo	27
## 343	Ender Inciarte	29
## 344	Jake Cave	27
## 345	Bo Bichette	22
## 346	Jacob Stallings	30
## 347	Kevan Smith	31
## 348	Willians Astudillo	28
## 349	Gerardo Parra	32
## 350	Jake Lamb	29
## 351	Bubba Starling	27
## 352	Ty France	25
## 353	Kyle Farmer	29
## 354	Yasiel Puig	29
## 355	Isan Diaz	23
## 356	Austin Dean	26
## 357	Dominic Smith	24
## 358	Edwin Encarnacion	37
## 359	Mike Freeman	32
## 360	Franmil Reyes	24
## 361	Jung Ho Kang	32
## 362	Yairo Munoz	25

## 363	Sandy Leon	31
## 364	Ryan Zimmerman	35
## 365	Will Smith	25
## 366	Travis Demeritte	25
## 367	Ryon Healy	28
## 368	Austin Slater	27
## 369	Matt Wieters	33
## 370	Daniel Descalso	33
## 371	Eduardo Nunez	32
## 372	Chance Sisco	25
## 373	Jon Jay	35
## 374	Jay Bruce	32
## 375	Alex Avila	33
## 376	Tony Kemp	28
## 377	David Freese	36
## 378	Manny Pina	32
## 379	Kevin Plawecki	29
## 380	Trent Grisham	23
## 381	Alex Dickerson	29
## 382	Gregory Polanco	28
## 383	Shed Long	24
## 384	Nate Lowe	24
## 385	Justin Bour	31
## 386	Ben Zobrist	38
## 387	Marco Hernandez	27
## 388	Matt Duffy	29
## 389	Cole Tucker	23
## 390	Matt Thaiss	24
## 391	Jay Bruce	32
## 392	Chris Iannetta	36
## 393	Charlie Tilson	27
## 394	Ryan Goins	32
## 395	Sam Travis	26
## 396	Mike Ford	27
## 397	Pablo Reyes	26
## 398	Erik Gonzalez	28
## 399	Jose Rondon	26
## 400	Adeiny Hechavarria	30
## 401	Tyler O'Neill	24
## 402	Ian Happ	25
## 403	Josh Rojas	25
## 404	Josh Harrison	32
## 405	Andrew Knapp	28
## 406	Tomas Nido	25
## 407	Charlie Culberson	30
## 408	Mark Reynolds	36
## 409	Chris Owings	28
## 410	Corey Dickerson	30
## 411	Meibrys Vilorio	23
## 412	JT Riddle	28
## 413	Mike Brosseau	26
## 414	Wilmer Difo	27
## 415	Tyler Austin	28
## 416	Corey Dickerson	30

## 417	Cam Gallagher	27
## 418	Odubel Herrera	28
## 419	DJ Stewart	26
## 420	Asdrubal Cabrera	34
## 421	Humberto Arteaga	26
## 422	Adam Duvall	31
## 423	Jose Trevino	27
## 424	Luke Maile	29
## 425	Brad Miller	30
## 426	Joey Rickard	28
## 427	Nick Solak	25
## 428	Bryan Holaday	32
## 429	Sean Rodriguez	34
## 430	Jake Rogers	24
## 431	Tim Lopes	25
## 432	Eric Sogard	33
## 433	Francisco Cervelli	34
## 434	Kendrys Morales	36
## 435	Roman Quinn	26
## 436	Myles Straw	25
## 437	Freddy Galvis	30
## 438	Nick Williams	26
## 439	Rosell Herrera	27
## 440	Carlos Gonzalez	34
## 441	Lucas Duda	34
## 442	Mauricio Dubon	25
## 443	Keon Broxton	29
## 444	Jace Peterson	29
## 445	Willi Castro	22
## 446	Reese McGuire	25
## 447	Zack Cozart	34
## 448	Yonathan Daza	26
## 449	Cory Spangenberg	29
## 450	Joe Panik	29
## 451	Tyler Wade	25
## 452	Derek Fisher	26
## 453	Jesus Aguilar	29
## 454	Max Stassi	29
## 455	Steve Pearce	36
## 456	Rafael Ortega	28
## 457	Michael Taylor	29
## 458	Carlos Gomez	34
## 459	Gerardo Parra	32
## 460	Zack Collins	25
## 461	Daniel Palka	28
## 462	Martin Maldonado	33
## 463	Cesar Puello	28
## 464	Chris Herrmann	32
## 465	Wilfredo Tovar	28
## 466	Jonathan Davis	27
## 467	Nick Martini	29
## 468	Tony Kemp	28
## 469	Scott Schebler	29
## 470	Pat Valaika	27

## 471	Jared Walsh	26
## 472	Nico Hoerner	22
## 473	Abraham Toro	23
## 474	Sam Hilliard	26
## 475	Mac Williamson	29
## 476	Brendan Rodgers	23
## 477	Ryan McBroom	27
## 478	Tim Federowicz	32
## 479	Scott Heineman	27
## 480	Gavin Lux	22
## 481	Seth Brown	27
## 482	Richard Urena	24
## 483	Yu Chang	24
## 484	Yangervis Solarte	32
## 485	Yonder Alonso	32
## 486	Kelvin Gutierrez	25
## 487	Robel Garcia	27
## 488	Matt Skole	30
## 489	Kevin Cron	27
## 490	Kyle Lewis	24
## 491	Austin Wynns	29
## 492	Nick Hundley	36
## 493	Scooter Gennett	29
## 494	Dustin Garneau	32
## 495	Austin Hays	24
## 496	Kyle Tucker	23
## 497	Blake Swihart	27
## 498	Phil Gosselin	31
## 499	Tyler Saladino	30
## 500	Brett Phillips	25
## 501	Austin Allen	26
## 502	Scooter Gennett	29
## 503	Thairo Estrada	24
## 504	Cedric Mullins	25
## 505	Jack Mayfield	29
## 506	Nicky Delmonico	27
## 507	John Ryan Murphy	28
## 508	Kendrys Morales	36
## 509	Jesus Sucre	31
## 510	Adeiny Hechavarria	30
## 511	Luis Guillorme	25
## 512	Matt Kemp	35
## 513	Yadiel Rivera	27
## 514	Giancarlo Stanton	30
## 515	Franklin Barreto	24
## 516	Braden Bishop	26
## 517	Jedd Gyorko	31
## 518	LaMonte Wade	26
## 519	Sheldon Neuse	25
## 520	Kyle Higashioka	29
## 521	Nick Dini	26
## 522	Josh Fuentes	27
## 523	Isaac Galloway	30
## 524	Kris Negrón	34

## 525	Jonathan Lucroy	33
## 526	Derek Fisher	26
## 527	Andrew Knizner	25
## 528	Sean Murphy	25
## 529	Keon Broxton	29
## 530	Mac Williamson	29
## 531	Terrance Gore	28
## 532	Christian Arroyo	24
## 533	Joey Rickard	28
## 534	Anthony Bemboom	30
## 535	Keon Broxton	29
## 536	Gorkys Hernandez	32
## 537	Hanley Ramirez	36
## 538	Chad Wallach	28
## 539	Kyle Garlick	28
## 540	Edwin Rios	25
## 541	J.B. Shuck	32
## 542	Jake Elmore	32
## 543	Miguel Andujar	25
## 544	Michael Perez	27
## 545	Bobby Bradley	23
## 546	Chris Owings	28
## 547	Bobby Wilson	36
## 548	Peter Bourjos	32
## 549	AJ Reed	26
## 550	Dustin Peterson	25
## 551	Alen Hanson	27
## 552	Drew Butera	36
## 553	Max Stassi	29
## 554	Peter O'Brien	29
## 555	Aramis Garcia	27
## 556	Taylor Ward	26
## 557	Kevin Kramer	26
## 558	Jaylin Davis	25
## 559	Brian O'Grady	27
## 560	Eric Stamets	28
## 561	Billy Hamilton	29
## 562	Cesar Puello	28
## 563	Carlos Gonzalez	34
## 564	Magneuris Sierra	23
## 565	Jake Fraley	24
## 566	Carter Kieboom	22
## 567	Danny Mendick	26
## 568	Socrates Brito	27
## 569	Dom Nunez	25
## 570	Rangel Ravelo	27
## 571	Caleb Joseph	33
## 572	Lane Thomas	24
## 573	Corban Joseph	31
## 574	Jedd Gyorko	31
## 575	Brad Miller	30
## 576	Mark Zagunis	27
## 577	Alex Blandino	27
## 578	Michael Hermosillo	25

## 579	Jason Martin	24
## 580	Garrett Stubbs	26
## 581	Greg Bird	27
## 582	Logan Morrison	32
## 583	Erik Kratz	39
## 584	Francisco Cervelli	34
## 585	Breyvic Valera	28
## 586	Max Moroff	26
## 587	Abraham Almonte	30
## 588	Aaron Altherr	29
## 589	Adrian Sanchez	29
## 590	Mason Williams	28
## 591	Andrew Stevenson	25
## 592	Seth Mejias-Brean	28
## 593	Aaron Altherr	29
## 594	Mark Trumbo	34
## 595	Anthony Alford	25
## 596	Patrick Wisdom	28
## 597	Blake Swihart	27
## 598	Kaleb Cowart	27
## 599	Rajai Davis	39
## 600	Domingo Leyba	24
## 601	Mike Gerber	27
## 602	Ryan Court	31
## 603	Beau Taylor	30
## 604	Kris Negron	34
## 605	Travis d'Arnaud	31
## 606	Ryan LaMarre	31
## 607	Mikie Mahtook	30
## 608	Cristhian Adames	28
## 609	Travis Jankowski	28
## 610	Tyler White	29
## 611	Erick Mejia	25
## 612	Ryan Flaherty	33
## 613	Dustin Pedroia	36
## 614	Tzu-Wei Lin	26
## 615	Jorge Bonifacio	26
## 616	Tyler Austin	28
## 617	Randy Arozarena	25
## 618	Alex Dickerson	29
## 619	Ryan Lavarney	32
## 620	Chris Shaw	25
## 621	Juan Graterol	31
## 622	Taylor Davis	30
## 623	Ian Miller	28
## 624	Dustin Garneau	32
## 625	Jose Pirela	30
## 626	Erik Kratz	39
## 627	Rene Rivera	36
## 628	Corban Joseph	31
## 629	Kevin Pillar	31
## 630	Ronald Torreyes	27
## 631	Eric Haase	27
## 632	Donovan Walton	25

## 633	Frank Schwindel	27
## 634	Breyvic Valera	28
## 635	Connor Joe	27
## 636	Juan Centeno	30
## 637	Franchy Cordero	25
## 638	Rocky Gale	32
## 639	Kean Wong	24
## 640	Luis Torrens	23
## 641	Zach Green	26
## 642	David Freitas	31
## 643	Alex Jackson	24
## 644	Bradley Zimmer	27
## 645	Andrew Velazquez	25
## 646	Jarrett Parker	31
## 647	Seby Zavala	26
## 648	Jake Noll	26
## 649	Raudy Read	26
## 650	Nick Martini	29
## 651	Corban Joseph	31
## 652	Troy Tulowitzki	35
## 653	Andrew Velazquez	25
## 654	Tyler Heineman	28
## 655	Martin Maldonado	33
## 656	Tyrone Taylor	26
## 657	Skye Bolt	26
## 658	Steve Baron	29
## 659	Ruben Tejada	30
## 660	Deivy Grullon	24
## 661	Michael Reed	27
## 662	Edmundo Sosa	24
## 663	Wilkin Castillo	35
## 664	Jed Lowrie	35
## 665	Drew Robinson	27
## 666	Abiatal Avelino	25
## 667	Christian Colon	30
## 668	Jacob Nottingham	24
## 669	Nick Ciuffo	25
## 670	Yasmany Tomas	29
## 671	Jose Pirela	30
## 672	Deven Marrero	29
## 673	Jim Adduci	34
## 674	Ichiro Suzuki	46
## 675	Anthony Bemboom	30
## 676	Johnny Davis	29
## 677	Sam Haggerty	25
## 678	Tyler Austin	28
## 679	Kean Wong	24
## 680	Drew Jackson	26
## 681	Mauricio Dubon	25
## 682	David Freitas	31
## 683	Beau Taylor	30
## 684	Mitch Walding	27
## 685	Noel Cuevas	28
## 686	Tres Barrera	25

```
## 687      Joe Hudson 28
## 688      Dylan Cozens 25
## 689      Jose Rondon 26
## 690      Travis d'Arnaud 31
## 691      Aaron Altherr 29
## 692      Rob Brantly 30
## 693      John Ryan Murphy 28
```

Problem 3

Part 1: Abhi has to say something...

“Hey, this is Abhi! Thank you ladies (and gentlemen) for helping me look at the ages of these players. Can you actually just give me 25 people, but also with their Batting Average (I think it’s called AVG in the data set).

```
temp = MLB_Batters %>% select(c("Player", "Age", "AVG"))
head(temp, 25)
```

```
##      Player Age  AVG
## 1 Whit Merrifield 31 0.302
## 2   Marcus Semien 29 0.285
## 3   Rafael Devers 23 0.311
## 4 Jonathan Villar 28 0.274
## 5   Ozzie Albies 23 0.295
## 6 Eduardo Escobar 31 0.269
## 7   Starlin Castro 30 0.270
## 8   Jose Abreu 33 0.284
## 9   Jorge Polanco 26 0.295
## 10  Ronald Acuna 22 0.280
## 11   Eric Hosmer 30 0.265
## 12   Amed Rosario 24 0.287
## 13 Xander Bogaerts 27 0.309
## 14 Cesar Hernandez 29 0.279
## 15   DJ LeMahieu 31 0.327
## 16   Trey Mancini 28 0.291
## 17   Elvis Andrus 31 0.275
## 18 Francisco Lindor 26 0.284
## 19 Paul Goldschmidt 32 0.260
## 20 Freddie Freeman 30 0.295
## 21   Mookie Betts 27 0.295
## 22   Pete Alonso 25 0.260
## 23   David Fletcher 25 0.290
## 24   Kevin Pillar 31 0.264
## 25   Jorge Soler 28 0.265
```

Part 2: Old is Gold!

We want to recognize some of the experienced players and we just want to see the players above 30 years old. Filter out the people from your last section (Part 3: Abhi has to say something...), we want to see the people above 30 years old. We do not wish to see people that have just celebrated their 30th birthday! Print out the first 25 players.

Hints:

1. This should have more than 50 people in it.
2. You can call this new data: temp_old

```
temp_old = temp %>% filter(Age > 30)
head(temp_old,25)
```

```
##           Player Age   AVG
## 1  Whit Merrifield  31 0.302
## 2  Eduardo Escobar  31 0.269
## 3    Jose Abreu    33 0.284
## 4    DJ LeMahieu   31 0.327
## 5    Elvis Andrus  31 0.275
## 6 Paul Goldschmidt  32 0.260
## 7    Kevin Pillar  31 0.264
## 8 Charlie Blackmon  33 0.314
## 9    J.D. Martinez  32 0.304
## 10 Michael Brantley  32 0.311
## 11   Carlos Santana  33 0.281
## 12    Tommy Pham    32 0.273
## 13    Adam Eaton    31 0.279
## 14    Yuli Gurriel   35 0.298
## 15   Shin-Soo Choo   37 0.265
## 16   Lorenzo Cain    33 0.260
## 17   Alex Gordon     36 0.266
## 18   Kole Calhoun    32 0.232
## 19   Josh Donaldson  34 0.259
## 20   Starling Marte  31 0.295
## 21   Brandon Belt    31 0.234
## 22    Joey Votto     36 0.261
## 23   Mike Moustakas  31 0.254
## 24   Yasmani Grandal  31 0.246
## 25    Josh Reddick   33 0.275
```

Part 3: James the Popular!

We think the most common first name for male in United States is James! You can Google it and let us know! Can you filter the people who are named James from the people you selected being over 30 year old? Again, we know the answer is yes! ;)

Hint: You could make a new variable and do all the filters again or use an already existing variable. We recommend the latter.

```
temp_old_james = temp_old %>% filter(Player == "James")
temp_old_james
```

```
## [1] Player Age   AVG
## <0 rows> (or 0-length row.names)
```

Reflection

You would have probably noticed that you did not find James! That is okay, he is not lost...hopefully! The reason is that when you search for “James”, our data set contains columns with First and Last Name. Therefore, when you search for only “James” it is not found.

This is very common to happen, our types of data does not match sometimes and we need to find workarounds for it. Sometimes we want to find the age of the people, but they are in string format. Sometimes we want to find if the person is a Male or Female, but the data sets has many variations like M, F, male, female, Boy, Girl, etc. As a Data Scientist, you should prepare to face these challenges that can definitely be tackled.

BONUS:

Can you find a solution to Problem 3 Part 2 (James issue), you are welcome to Google it and collaborate with others. Feel free to ask instructors, but they most likely will ask you to Google it. You are always allowed to view outside sources to to grow as a Data Scientist, even in real world! We are a community helping each other out to find solutions and grow!

Type your solution into the R code chunk to the James problem if you figure it out! :)

```
MLB_Batters[str_detect(MLB_Batters$Player, "James"),]
```

```
##           Player Team Pos Age  G  AB  R   H X2B X3B HR RBI SB CS BB  SO SH SF
## 138 James McCann  CWS   C  29 118 439 62 120  26   1 18  60  4  1 30 137  1  0
##      HBP  AVG  OBP  SLG  OPS
## 138    6 0.273 0.328 0.46 0.788
```

Submission

Once you have finished your lab...

1. Go to the top left and click **File** and **Save**.
2. Click on the **Knit** button to convert this file to a PDF.
3. Submit **BOTH** the .Rmd file and .pdf file to Blackboard by 11:59 PM tonight.