

TOY_1

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```
library(tidyr)
library(dplyr)
```

PARTE 1: Crear Stints

DATA

```
homeplayer <- paste0("homeplayer",1:10)
awayplayer <- paste0("awayplayer",1:10)
```

```
toy <- data.frame(
  "id_play" = 1:15,
  "season" = c(rep("S2017",15)),
  "game_code_code" = c(rep("G1",10), rep("G2",5)),
  "quarter" = c(rep(1,3), rep(2,2),rep(3,2),rep(4,3),rep(1,4),rep(2,1)),
  "minute" = c(0,3,5,11,15,21,27,31,33,36,0,3,4,6,11),
  "points_home" = c(0,0,0,2,2,2,5,5,7,7,0,3,3,5,6),
  "points_away" = c(0,2,2,2,4,4,7,7,9,9,0,0,2,2,2),
  "homeplayer1" = c(rep(homeplayer[1],4),rep(homeplayer[6],5),rep(homeplayer[1],6)),
  "homeplayer2" = homeplayer[2],
  "homeplayer3" = c(rep(homeplayer[3],7), rep(homeplayer[7],2),rep(homeplayer[3],6)),
  "awayplayer1" = awayplayer[1],
  "awayplayer2" = c(rep(awayplayer[2],8),awayplayer[7], rep(awayplayer[2],6)),
  "awayplayer3" = awayplayer[3]
)
```

```
toy2 <- data.frame(                                     #DF2 para comprobar que funciona
  "id_play" = 1:20,
  "season" = c(rep("S2017",20)),
  "game_code" = c(rep("G1",10), rep("G2",10)),
  "quarter" = c(rep(1,3), rep(2,2),rep(3,2),rep(4,3),rep(1,4),rep(2,6)),
  "minute" = c(0,3,5,11,15,21,27,31,33,36,0,3,4,6,11,12,14,16,17,19),
  "points_home" = c(0,0,0,2,2,2,5,5,7,7,0,2,2,5,5,7,7,9,10),
  "points_away" = c(0,2,2,2,4,4,7,7,9,9,0,0,2,2,4,4,6,6,6,6),
  "homeplayer1" = c(rep(homeplayer[1],4),rep(homeplayer[6],5),rep(homeplayer[1],8), rep(homeplayer[1],3),
  "homeplayer2" = homeplayer[2],
  "homeplayer3" = c(rep(homeplayer[3],7), rep(homeplayer[7],2),rep(homeplayer[3],9), rep(homeplayer[9],1),
  "awayplayer1" = awayplayer[1],
  "awayplayer2" = c(rep(awayplayer[2],8),awayplayer[7], rep(awayplayer[2],9), rep(awayplayer[5],2)),
  "awayplayer3" = awayplayer[3]
```

```

)

toy_backup <- toy

df <- toy2

df <- df %>% unite("lineups", homeplayer1:awayplayer3, remove = TRUE)

names(df)

## [1] "id_play"      "season"      "game_code"   "quarter"     "minute"
## [6] "points_home" "points_away" "lineups"

df

##      id_play season game_code quarter minute points_home points_away
## 1         1  S2017         G1         1         0             0           0
## 2         2  S2017         G1         1         3             0           2
## 3         3  S2017         G1         1         5             0           2
## 4         4  S2017         G1         2        11             2           2
## 5         5  S2017         G1         2        15             2           4
## 6         6  S2017         G1         3        21             2           4
## 7         7  S2017         G1         3        27             5           7
## 8         8  S2017         G1         4        31             5           7
## 9         9  S2017         G1         4        33             7           9
## 10        10  S2017         G1         4        36             7           9
## 11        11  S2017         G2         1         0             0           0
## 12        12  S2017         G2         1         3             2           0
## 13        13  S2017         G2         1         4             2           2
## 14        14  S2017         G2         1         6             5           2
## 15        15  S2017         G2         2        11             5           4
## 16        16  S2017         G2         2        12             7           4
## 17        17  S2017         G2         2        14             7           6
## 18        18  S2017         G2         2        16             7           6
## 19        19  S2017         G2         2        17             9           6
## 20        20  S2017         G2         2        19            10           6
##
##                                     lineups
## 1 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 2 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 3 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 4 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 5 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 6 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 7 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 8 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer2_awayplayer3
## 9 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer7_awayplayer3
## 10 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 11 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 12 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 13 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 14 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 15 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 16 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 17 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3

```

```
## 18 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 19 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
## 20 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
```

MERGE Temporada+game_code

```
df_merged <- df %>% unite("SeasonGame", c("season", "game_code"))
df_merged
```

```
##      id_play SeasonGame quarter minute points_home points_away
## 1         1    S2017_G1         1         0             0           0
## 2         2    S2017_G1         1         3             0           2
## 3         3    S2017_G1         1         5             0           2
## 4         4    S2017_G1         2        11             2           2
## 5         5    S2017_G1         2        15             2           4
## 6         6    S2017_G1         3        21             2           4
## 7         7    S2017_G1         3        27             5           7
## 8         8    S2017_G1         4        31             5           7
## 9         9    S2017_G1         4        33             7           9
## 10        10    S2017_G1         4        36             7           9
## 11        11    S2017_G2         1         0             0           0
## 12        12    S2017_G2         1         3             2           0
## 13        13    S2017_G2         1         4             2           2
## 14        14    S2017_G2         1         6             5           2
## 15        15    S2017_G2         2        11             5           4
## 16        16    S2017_G2         2        12             7           4
## 17        17    S2017_G2         2        14             7           6
## 18        18    S2017_G2         2        16             7           6
## 19        19    S2017_G2         2        17             9           6
## 20        20    S2017_G2         2        19            10           6
##
##                                     lineups
## 1  homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 2  homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 3  homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 4  homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 5  homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 6  homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 7  homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 8  homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer2_awayplayer3
## 9  homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer7_awayplayer3
## 10 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 11 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 12 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 13 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 14 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 15 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 16 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 17 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 18 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 19 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
## 20 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
```

ORDENAR DF -> Ya no hace falta

UNIQUE quintetos

```
library(dplyr)

# Columnas TRUE o FALSE si son iguales a su lag row
df_merged$players_SAME <- df_merged$lineups == lag(df_merged$lineups)
df_merged$SeasonGame_SAME <- df_merged$SeasonGame == lag(df_merged$SeasonGame)

## Determinamos los primeros elementos de estas dos variables como FALSE para que no
## nos aparezca NA, ya que no puede evaluar con anterior
df_merged$players_SAME[1] <- FALSE
df_merged$SeasonGame_SAME[1] <- FALSE

df_merged$NEW_STINT <- ifelse(((df_merged$players_SAME == FALSE)|(df_merged$SeasonGame_SAME == FALSE ))
                             TRUE, FALSE)
    ### 1ra condiciones para cambio de jugadores y 2nda para cambio de partido.

df_merged

##      id_play SeasonGame quarter minute points_home points_away
## 1         1   S2017_G1         1         0             0         0
## 2         2   S2017_G1         1         3             0         2
## 3         3   S2017_G1         1         5             0         2
## 4         4   S2017_G1         2        11             2         2
## 5         5   S2017_G1         2        15             2         4
## 6         6   S2017_G1         3        21             2         4
## 7         7   S2017_G1         3        27             5         7
## 8         8   S2017_G1         4        31             5         7
## 9         9   S2017_G1         4        33             7         9
## 10        10   S2017_G1         4        36             7         9
## 11        11   S2017_G2         1         0             0         0
## 12        12   S2017_G2         1         3             2         0
## 13        13   S2017_G2         1         4             2         2
## 14        14   S2017_G2         1         6             5         2
## 15        15   S2017_G2         2        11             5         4
## 16        16   S2017_G2         2        12             7         4
## 17        17   S2017_G2         2        14             7         6
## 18        18   S2017_G2         2        16             7         6
## 19        19   S2017_G2         2        17             9         6
## 20        20   S2017_G2         2        19            10         6
##
##                                     lineups
## 1 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 2 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 3 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 4 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 5 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 6 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 7 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 8 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer2_awayplayer3
## 9 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer7_awayplayer3
## 10 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 11 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
```

```
## 12 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 13 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 14 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 15 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 16 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 17 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 18 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 19 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
## 20 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
##   players_SAME SeasonGame_SAME NEW_STINT
## 1          FALSE          FALSE      TRUE
## 2           TRUE           TRUE     FALSE
## 3           TRUE           TRUE     FALSE
## 4           TRUE           TRUE     FALSE
## 5          FALSE           TRUE      TRUE
## 6           TRUE           TRUE     FALSE
## 7           TRUE           TRUE     FALSE
## 8          FALSE           TRUE      TRUE
## 9          FALSE           TRUE      TRUE
## 10         FALSE           TRUE      TRUE
## 11          TRUE          FALSE      TRUE
## 12          TRUE           TRUE     FALSE
## 13          TRUE           TRUE     FALSE
## 14          TRUE           TRUE     FALSE
## 15          TRUE           TRUE     FALSE
## 16          TRUE           TRUE     FALSE
## 17          TRUE           TRUE     FALSE
## 18          TRUE           TRUE     FALSE
## 19         FALSE           TRUE      TRUE
## 20          TRUE           TRUE     FALSE
```

Hasta aquí tenemos detectados cuando hay cambios

STINTS

```
#### Filas que tenemos que conservar:
df_merged$stint <- ifelse((lead(df_merged$NEW_STINT) == TRUE)|(df_merged$SeasonGame_SAME == FALSE ),
                          df_merged$NEW_STINT, NA)

#### La primera condicion nos mantiene las que son iguales anterior a la fila en la que estamos
#### ha habiado cambio. La segunda condicion nos mantiene la primera entrada de cada partido.

# Para que nos aparezcan tambien la primera y la ultima entrada:
n_df <- dim(df_merged)[1]
df_merged$stint[1] <- df_merged$NEW_STINT[1]
df_merged$stint[n_df] <- df_merged$NEW_STINT[n_df]

df_merged
```

```
##   id_play SeasonGame quarter minute points_home points_away
## 1      1   S2017_G1      1      0          0          0
## 2      2   S2017_G1      1      3          0          2
## 3      3   S2017_G1      1      5          0          2
```

## 4	4	S2017_G1	2	11	2	2
## 5	5	S2017_G1	2	15	2	4
## 6	6	S2017_G1	3	21	2	4
## 7	7	S2017_G1	3	27	5	7
## 8	8	S2017_G1	4	31	5	7
## 9	9	S2017_G1	4	33	7	9
## 10	10	S2017_G1	4	36	7	9
## 11	11	S2017_G2	1	0	0	0
## 12	12	S2017_G2	1	3	2	0
## 13	13	S2017_G2	1	4	2	2
## 14	14	S2017_G2	1	6	5	2
## 15	15	S2017_G2	2	11	5	4
## 16	16	S2017_G2	2	12	7	4
## 17	17	S2017_G2	2	14	7	6
## 18	18	S2017_G2	2	16	7	6
## 19	19	S2017_G2	2	17	9	6
## 20	20	S2017_G2	2	19	10	6
##						lineups
## 1	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 2	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 3	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 4	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 5	homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 6	homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 7	homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 8	homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer2_awayplayer3					
## 9	homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer7_awayplayer3					
## 10	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 11	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 12	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 13	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 14	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 15	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 16	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 17	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 18	homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3					
## 19	homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3					
## 20	homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3					
##	players_SAME SeasonGame_SAME NEW_STINT stint					
## 1	FALSE	FALSE	TRUE	TRUE		
## 2	TRUE	TRUE	FALSE	NA		
## 3	TRUE	TRUE	FALSE	NA		
## 4	TRUE	TRUE	FALSE	FALSE		
## 5	FALSE	TRUE	TRUE	NA		
## 6	TRUE	TRUE	FALSE	NA		
## 7	TRUE	TRUE	FALSE	FALSE		
## 8	FALSE	TRUE	TRUE	TRUE		
## 9	FALSE	TRUE	TRUE	TRUE		
## 10	FALSE	TRUE	TRUE	TRUE		
## 11	TRUE	FALSE	TRUE	TRUE		
## 12	TRUE	TRUE	FALSE	NA		
## 13	TRUE	TRUE	FALSE	NA		
## 14	TRUE	TRUE	FALSE	NA		
## 15	TRUE	TRUE	FALSE	NA		

```

## 16      TRUE      TRUE     FALSE    NA
## 17      TRUE      TRUE     FALSE    NA
## 18      TRUE      TRUE     FALSE FALSE
## 19     FALSE      TRUE      TRUE    NA
## 20      TRUE      TRUE     FALSE FALSE

STINTS <- df_merged %>% drop_na(stint)           #Eliminar NA rows
STINTS$ID_Stint <- 1:nrow(STINTS)                #Crear Identificador Stints

STINTS$stint_minutes <- ifelse(STINTS$SeasonGame_SAME == TRUE, STINTS$minute - lag(STINTS$minute), 0)

#View(STINTS %>% select(c(ID_Stint, stint_minutes, points_home, points_away)))

PM_function <- function(h,a){
  PM <- (h-lag(h))-(a-lag(a))
  PM
}

STINTS$PM_H <- ifelse(STINTS$SeasonGame_SAME == TRUE,
  PM_function(STINTS$points_home, STINTS$points_away), 0)

STINTS$PM_A <- -STINTS$PM_H
STINTS

##   id_play SeasonGame quarter minute points_home points_away
## 1      1   S2017_G1      1      0          0          0
## 2      4   S2017_G1      2     11          2          2
## 3      7   S2017_G1      3     27          5          7
## 4      8   S2017_G1      4     31          5          7
## 5      9   S2017_G1      4     33          7          9
## 6     10   S2017_G1      4     36          7          9
## 7     11   S2017_G2      1      0          0          0
## 8     18   S2017_G2      2     16          7          6
## 9     20   S2017_G2      2     19         10          6
##                                     lineups
## 1 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 2 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 3 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 4 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer2_awayplayer3
## 5 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer7_awayplayer3
## 6 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 7 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 8 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 9 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
##  players_SAME SeasonGame_SAME NEW_STINT stint ID_Stint stint_minutes PM_H PM_A
## 1      FALSE      FALSE      TRUE  TRUE      1          0      0      0
## 2      TRUE      TRUE      FALSE FALSE      2         11      0      0
## 3      TRUE      TRUE      FALSE FALSE      3         16     -2      2
## 4      FALSE      TRUE      TRUE  TRUE      4          4      0      0
## 5      FALSE      TRUE      TRUE  TRUE      5          2      0      0
## 6      FALSE      TRUE      TRUE  TRUE      6          3      0      0
## 7      TRUE      FALSE      TRUE  TRUE      7          0      0      0
## 8      TRUE      TRUE      FALSE FALSE      8         16      1     -1
## 9      TRUE      TRUE      FALSE FALSE      9          3      3     -3

```

```
STINTS_Reduced <- STINTS %>% select(c(lineups, stint_minutes, PM_H, PM_A))
STINTS_Reduced
```

```
##                                     lineups
## 1 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 2 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 3 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 4 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer2_awayplayer3
## 5 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer7_awayplayer3
## 6 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 7 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 8 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 9 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
##   stint_minutes PM_H PM_A
## 1             0    0    0
## 2             11    0    0
## 3             16   -2    2
## 4              4    0    0
## 5              2    0    0
## 6              3    0    0
## 7              0    0    0
## 8             16    1   -1
## 9              3    3   -3
```

Sumar PM de los mismos lineups:

```
STINTS_Reduced_Lineups <- aggregate(. ~ lineups, STINTS_Reduced, sum, na.rm = TRUE)
STINTS_Reduced_Lineups
```

```
##                                     lineups
## 1 homeplayer1_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 2 homeplayer1_homeplayer2_homeplayer9_awayplayer1_awayplayer5_awayplayer3
## 3 homeplayer6_homeplayer2_homeplayer3_awayplayer1_awayplayer2_awayplayer3
## 4 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer2_awayplayer3
## 5 homeplayer6_homeplayer2_homeplayer7_awayplayer1_awayplayer7_awayplayer3
##   stint_minutes PM_H PM_A
## 1             30    1   -1
## 2              3    3   -3
## 3             16   -2    2
## 4              4    0    0
## 5              2    0    0
```

PARTE 2: Dummys Jugadores

#PRUEBA2 - fastDummies

Vector con todos los nombres de los jugadores:

```
vec_players <- unique(c(homeplayer, awayplayer))
length(vec_players)
```

```
## [1] 20
```

DUDA:

*# Como especifico que jugador tiene PM positivo o negativo? Dependiendo de si local o visitante,
su PM sera diferente, pero no siempre sera LOCAL. Como determino de cual es cual?*


```
df_dummys <- fastDummies::dummy_cols(STINTS_Reduced_Lineups, select_columns = "lineups", split = "_")
df_dummys_sort <- df_dummys[ , order(names(df_dummys))]
```

```
df_dummys_sort[-1]
```

```
##   lineups_awayplayer1 lineups_awayplayer2 lineups_awayplayer3
## 1                   1                   1                   1
## 2                   1                   0                   1
## 3                   1                   1                   1
## 4                   1                   1                   1
## 5                   1                   0                   1
##   lineups_awayplayer5 lineups_awayplayer7 lineups_homeplayer1
## 1                   0                   0                   1
## 2                   1                   0                   1
## 3                   0                   0                   0
## 4                   0                   0                   0
## 5                   0                   1                   0
##   lineups_homeplayer2 lineups_homeplayer3 lineups_homeplayer6
## 1                   1                   1                   0
## 2                   1                   0                   0
## 3                   1                   1                   1
## 4                   1                   0                   1
## 5                   1                   0                   1
##   lineups_homeplayer7 lineups_homeplayer9 PM_A PM_H stint_minutes
## 1                   0                   0  -1   1          30
## 2                   0                   1  -3   3           3
## 3                   0                   0   2  -2          16
## 4                   1                   0   0   0           4
## 5                   1                   0   0   0           2
```