

title: "OKC Thunder Internship Applicant" author: "Alexander Rich" date: "October 24th, 2022"

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shots <- read.file("shots_data (1).csv")

## Reading data with read.csv()

newDataSet <- shots %>%
  mutate(C3 = ifelse(abs(x)>22 & abs(y) <= 7.8, 1, 0)) %>%
  mutate(NC3 = ifelse(x^2 + y^2 > (23.75^2) & C3 == 0, 1, 0)) %>%
  mutate(PT2 = ifelse(NC3 != 1 & C3 != 1, 1, 0))

teamA <- newDataSet %>%
  filter(team == "Team A")

teamB <- newDataSet %>%
  filter(team == "Team B")

sumsA <- c(sum(teamA$NC3), sum(teamA$C3), sum(teamA$PT2))
sumsB <- c(sum(teamB$NC3), sum(teamB$C3), sum(teamB$PT2))

totalA <- 68+18+194
percA <- sumsA/totalA
head(percA)

## [1] 0.24285714 0.06428571 0.69285714

totalB <- 62+11+151
percB <- sumsB/totalB
head(percB)

## [1] 0.27678571 0.04910714 0.67410714

#now you have to find the effective field goal percentage below
teamAMade <- teamA %>%
  group_by(fgmade) %>%
  summarise(sum(NC3), sum(C3), sum(PT2))

teamBMade <- teamB %>%
  group_by(fgmade) %>%
  summarise(sum(NC3), sum(C3), sum(PT2))

efgANC3 <- (21+(21*.5))/68
efgAC3 <- (9+(9*.5))/18
efgAPT2 <- (95/194)

efgBNC3 <- (21+(21*.5))/62
efgBC3 <- (4+(4*.5))/11
efgBPT2 <- (67/151)
```

Solutions for eFGs:

eFG% for Team A: Non Corner 3: 0.463 Corner 3: 0.750 Two Point: 0.490

eFG% for Team B: Non Corner 3: 0.508 Corner 3: 0.545 Two Point: 0.444