STAT 331/531: Taylor Swift Time Travel

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Can Taylor Swift make it to the Super Bowl?

Japan | Las Vegas

```r
japan <- data.frame(time_zone = c("Japan")) |>
  mutate(concert_start = mdy_hms("2/10/2024 18:00:00",
                                 tz = time_zone),
         concert_end = concert_start + dhours(5),
         flight_takeoff = concert_end + dhours(3),
         flight_landing = flight_takeoff + dhours(13)
         )
japan
```

time_zone	concert_start	concert_end	flight_takeoff	flight_landing
Japan	2024-02-10 18:00:00	2024-02-10 23:00:00	2024-02-11 02:00:00	2024-02-11 15:00:00

> **Note:**
>
> This is assuming 3 hours to get to the airport post-concert and a 13-hour flight from Japan to Las Vegas

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Japan | **Las Vegas**

```r
1  las_vegas <- data.frame(time_zone = c("US/Pacific")) |>
2    mutate(flight_landing = with_tz(japan$flight_landing,
3                                    time_zone),
4           game_start = mdy_hms("2/11/2024 15:30:00",
5                                tz = time_zone),
6           jetlag_recovery_time = difftime(game_start,
7                                           flight_landing,
8                                           units = "hours")
9          )
10 las_vegas
```

time_zone	flight_landing	game_start	jetlag_recovery_time
US/Pacific	2024-02-10 22:00:00	2024-02-11 15:30:00	17.5 hours

Results:

Yes!

Taylor Swift will have 17.5 hours between landing in Las Vegas and the Super Bowl kickoff - plenty of time for some jet lag recovery and to get ready for the game!