

Fly Ball!

Description

A baseball team had some success with their sports analytics group in the past and this year they collected all locations of their opponents deep fly balls, per inning. Determine the defensive locations on the field that provide the best coverage on deep fly balls during each of the 9 innings for the three outfielders. A deep fly ball is considered covered when an outfielder can reach the fly ball given the average distance they can travel per hit. The current LF, CF, and RF players, on average, can run a distance of 29.5, 33.8, and 30.1 feet per deep fly ball hit respectively. They are also each comfortable with playing any outfield position. The units of the coordinate system used are feet.



Datasets Provided

A matrix containing the X,Y coordinates of each landing spot and the inning of occurrence.

Solution Requirements

Please submit the X,Y coordinates for the 3 positions (LF, CF, RF respectively) for each of the 9 innings in a .xlsx (Excel file) under a column header as follows:

LF X, LF Y, CF X, CF Y, RF X, RF Y, Inning

For example:

	A	B	C	D	E	F	G	H
1	LF X	LF Y	CF X	CF Y	RF X	RF Y	Inning	
2	12	239	-47	249	7	266	1	
3	-33	166	-25	104	-3	266	2	
4	55	245	-8	182	-77	231	3	
5	77	109	-46	207	12	271	4	
6	80	231	59	213	-61	127	5	
7	-63	234	-28	259	3	253	6	
8	91	121	-52	263	72	245	7	
9	-14	269	-16	195	62	108	8	
10	-17	159	-19	133	-28	265	9	
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