

Defense wins Championships!

Description

A Junior league baseball team recorded all the landing spots/coordinates of all hits for each opponent they played last year. They've decided to update their defensive positioning based on this data. Where should each player stand to minimize the sum of the distances from each landing spot to the closest player? Remember the catcher, pitcher, first baseman and third baseman have position specific responsibilities. As such, they must stay within 6 feet of the home plate (0,0), pitcher's mound (0,60.5), first base (63.6,63.6) and third base (-63.6,63.6) respectively. The coordinates of the landing spots of the hits are in the data provided. The units of the coordinate system used are feet.



Datasets Provided

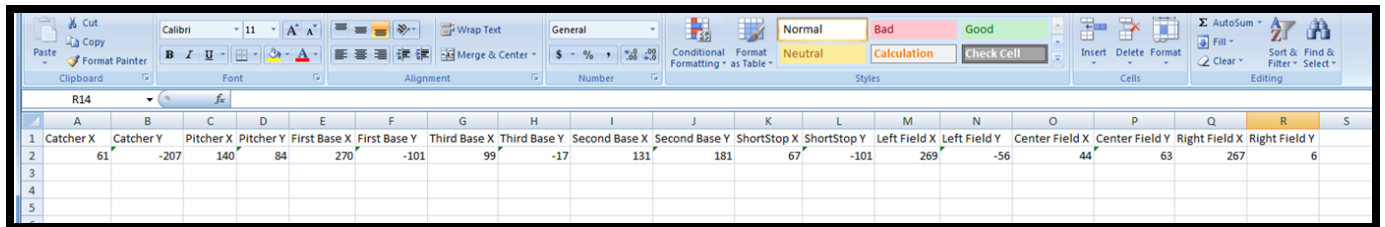
A matrix containing the X,Y coordinates of each landing spot.

Solution Requirements

Please submit the X,Y coordinates for each player position in a .xlsx (Excel file) under a column header as follows:

Catcher X, Catcher Y, Pitcher X, Pitcher Y, First Base X, First Base Y, Third Base X, Third Base Y, Second Base X, Second Base Y, ShortStop X, ShortStop Y, Left Field X, Left Field Y, Center Field X, Center Field Y, Right Field X, Right Field Y

For example:



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	Catcher X	Catcher Y	Pitcher X	Pitcher Y	First Base X	First Base Y	Third Base X	Third Base Y	Second Base X	Second Base Y	ShortStop X	ShortStop Y	Left Field X	Left Field Y	Center Field X	Center Field Y	Right Field X	Right Field Y		
2	61	-207	140	84	270	-101	99	-17	131	181	67	-101	269	-56	44	63	267	6		
3																				
4																				
5																				