# The Catcher who "Excel"-ed

A baseball coach has four players trying out for the position of catcher. Due to roster constraints he can only travel with two, the other two will be traded. A two-week tryout was held in Florida, and the data were collected. Each catcher got the same amount of work in practice, and each player caught one entire game in spring training. The coaching staff wants to pick the best defensive catcher, so only the defensive drills are relevant. Here are the data the coaches collected

Catcher	Blocked Balls	Past Balls	Missed Signs	Received Signs	Runners Thrown-out	Total Runners
Catcher 1	725	12	2	175	2	13
Catcher 2	800	24	3	182	5	15
Catcher 3	695	17	1	163	8	14
Catcher 4	832	3	6	157	2	12

After staring at the results of spring training, the coaches cannot decide which catches to keep and which to throw away. The coach needs your help in devising a way to select the two best defensive catchers.

Directions: Follow the steps to enter the data into Excel and solve the problem. You will be working in teams to complete this exercise

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1. Open Excel and go to File and open as shown below
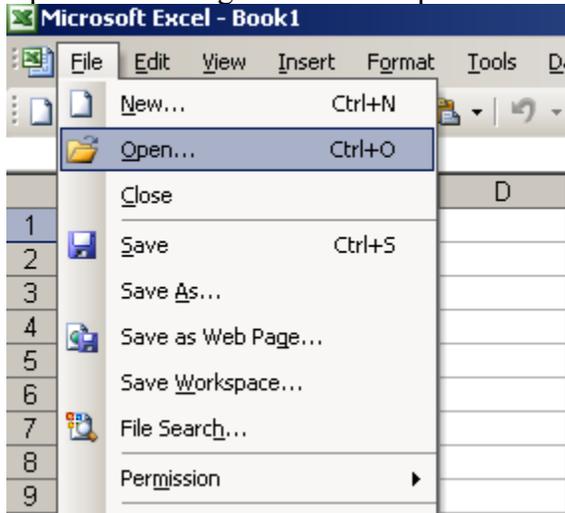
   Open the file baseball.xls

2. Now you have opened a file that I have pre-entered data in. First you are going to work with Catcher 1 so make the bottom of the spreadsheet look like the picture below:
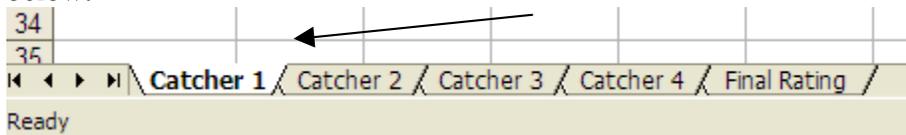
3. Now we are going to enter the data for Catcher 1. Enter the data in the space provided in the correct column. You can enter the data by simply clicking on the cell you wish to enter the number from the chart on page one. Remember this worksheet is only for the results of Catcher 1's try-out.

The non-bold entries are entered by you, and we will fill in the other things later.

The "false" have to do with pre-entered data so you don't have to worry about that now.

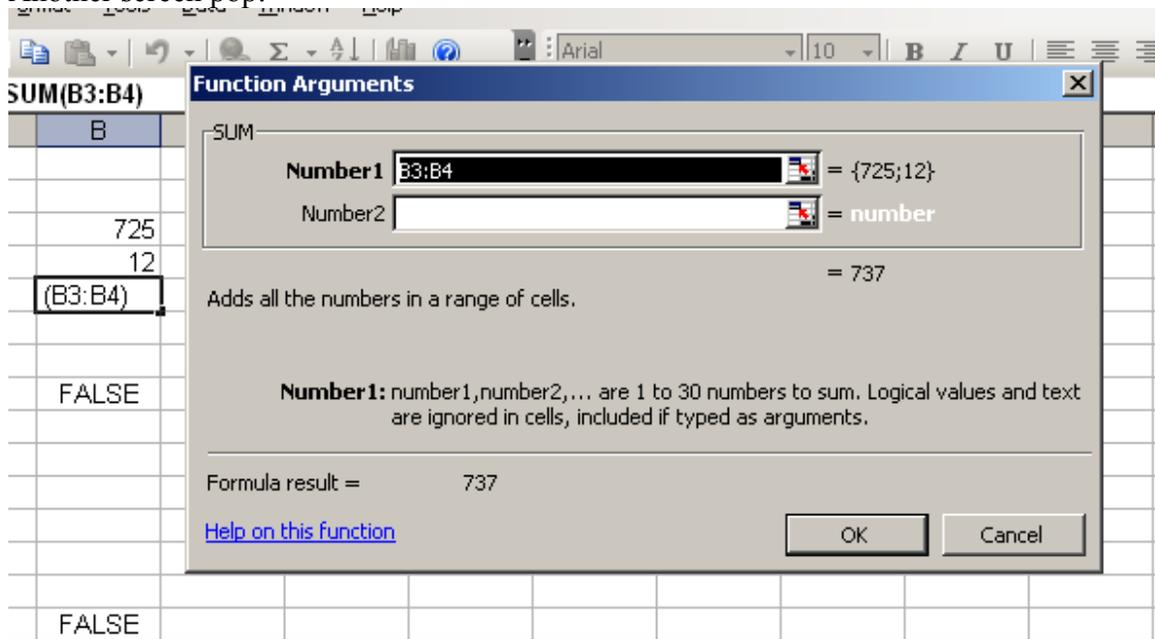4. Next we are going to write a function to total the number of balls thrown at the catcher. Click on cell B5 and then click the [*fx*] on the tool bar. And this screen should come up
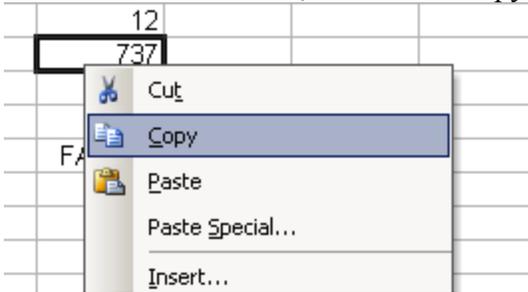
Highlight SUM and click OK

Insert Function [?][X]

Search for a function:

| Type a brief description of what you want to do and then click Go | Go |

Or select a category: Most Recently Used

Select a function:

SUM
AVERAGE
IF
HYPERLINK
COUNT
MAX
SIN

SUM(number1,number2,...)
Adds all the numbers in a range of cells.

Help on this function   OK   Cancel

Another screen pop:

Arial   10   B I U ≡ ≡ ≡

SUM(B3:B4)

Function Arguments [X]

SUM

Number1 B3:B4   = {725;12}
Number2   = number

= 737

Adds all the numbers in a range of cells.

Number1: number1,number2,... are 1 to 30 numbers to sum. Logical values and text are ignored in cells, included if typed as arguments.

Formula result =   737

Help on this function   OK   Cancel

| B |
|---|
| 725 |
| 12 |
| (B3:B4) |
| |
| FALSE |
| |
| |
| FALSE |

up you need to highlight the cells B3 and B4 and then click OK.

5. To find the percentage type "=" in cell B7 then click on number blocked balls cell, then the divide key and the total cell that you just wrote a formula for. It should look like this for the first example =B3/B5*100, so we get a percentage.

6. I have entered the formula for the rating for you so it should come up after you enter the data. Now you are ready to enter the "missed and received signs." Right click on cell B5, and select "copy"

```
        12
       737
   ┌──────────────────────────┐
   │  ✂  Cut                  │
   │  ▣  Copy                 │
 F │  ▣  Paste                │
   │                          │
   │     Paste Special...     │
   │                          │
   │     Insert...            │
   └──────────────────────────┘
```

7. After you have all the totals, find the percentages for the categories. You must type the "=" sign and then click on the cell you wish to divide. You can do this by typing the Letter and number of the cell in the formula bar.

f_x =B11/B12*100

B
725
12
737
FALSE
2
175
177
312*100
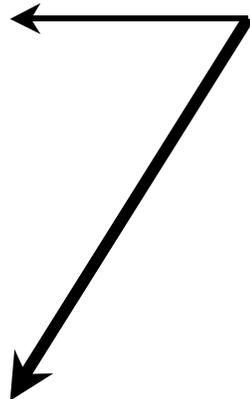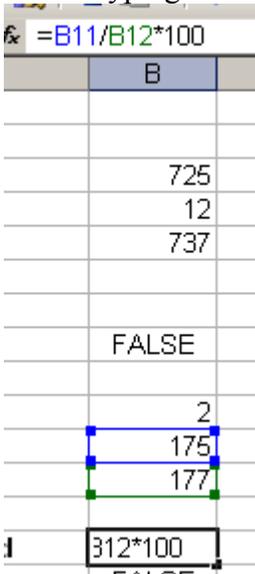
Notice how the cells entered in the function bar automatically block the cells you wish you use in your function.

8. Now Cells B8, B15, and B21 should now have number values. These will come into play later on to help you suggest to the coach the best catcher.
9. Repeat steps 4-7 for catchers 2-4. To get to the worksheet for each catcher click once on the tab for the corresponding catcher

```
   33
   34
   35
 |◀ ◀ ▶ ▶|\ Catcher 1 \ Catcher 2 / Catcher 3 / Catcher 4 /
   Point
```
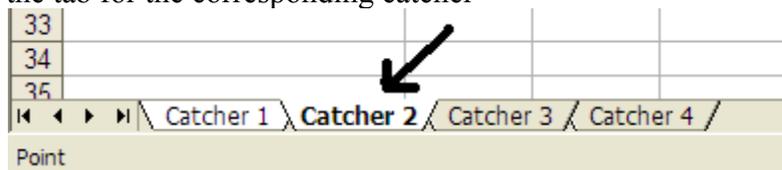
10. After everything is entered click on the Final Rating Tab and look at the ratings for the catches, the two with the highest ratings are the two you will suggest to the coach to keep.

Which two should the coach pick??

1. _____

2. _____