I am going to use *Mathematica* to create a table of statistics from a trivia tournament that happened in December.

Teams consist of 4-5 players. On each question, a player can either get +10 points (a “ten”), or -5 points (a “neg”), or nothing.

There are 20 questions in each game, and each team (although not each individual player) played 12 games.

This is the list of players in the tournament, with their total numbers of tens, negs, and games played.

```
jay = {65, 18, 12}
huma = {33, 6, 12}
joe = {21, 4, 12}
paul2 = {15, 4, 12}
aaron = {35, 13, 7}
erik = {22, 7, 12}
paul1 = {20, 5, 12}
ian = {12, 4, 12}
nathan = {9, 1, 12}
jordan = {57, 19, 12}
aayush = {55, 18, 12}
luka = {8, 1, 12}
cam = {5, 1, 11}
pat = {54, 19, 12}
adam = {42, 7, 12}
mingho = {12, 2, 12}
christine = {10, 0, 12}
empty = {0, 0, 12}
```

```
{65, 18, 12}

{33, 6, 12}

{21, 4, 12}

{15, 4, 12}

{35, 13, 7}

{22, 7, 12}

{20, 5, 12}

{12, 4, 12}

{9, 1, 12}
```

```
{57, 19, 12}

{55, 18, 12}

{8, 1, 12}

{5, 1, 11}

{54, 19, 12}

{42, 7, 12}

{12, 2, 12}

{10, 0, 12}

{0, 0, 12}
```

Here are some functions I've created to calculate more advanced statistics.

```
points[{tens_, negs_, gp_}] := 10 * tens - 5 * negs
ppg[{tens_, negs_, gp_}] := N[points[{tens, negs, gp}] / gp, 4]
pptu[{tens_, negs_, gp_}] := ppg[{tens, negs, gp}] / 20
tensperneg[{tens_, negs_, gp_}] := If[negs == 0, "inf", N[tens / negs, 4]]
```

This is a list of the teams in the tournament, with their players. Below are some functions created to calculate team statistics.

```
becausetheyrebig = {jay, huma, joe, paul2, empty}
nonbosco = {aaron, erik, paul1, ian, nathan}
angelamerkelsbones = {jordan, aayush, luka, cam, empty}
taqbwfp = {pat, adam, mingho, christine, empty}
{{65, 18, 12}, {33, 6, 12}, {21, 4, 12}, {15, 4, 12}, {0, 0, 12}}

{{35, 13, 7}, {22, 7, 12}, {20, 5, 12}, {12, 4, 12}, {9, 1, 12}}

{{57, 19, 12}, {55, 18, 12}, {8, 1, 12}, {5, 1, 11}, {0, 0, 12}}

{{54, 19, 12}, {42, 7, 12}, {12, 2, 12}, {10, 0, 12}, {0, 0, 12}}
```

```
teampoints[{p1_, p2_, p3_, p4_, p5_}] :=
 points[p1] + points[p2] + points[p3] + points[p4] + points[p5]
teamppg[team_] := N[teampoints[team] / 12, 4]
teampptu[team_] := N[teampoints[team] / 240, 4]
teamtensperneg[team_] :=
 N[(Sum[team[[i]][[1]], {i, 5}]) / (Sum[team[[i]][[2]], {i, 5}]), 4]
```

This is a list of the players, so I can call this list later.

```
playerlist = {jay, aaron, jordan, aayush, pat, adam, huma,
   joe, erik, paul1, paul2, mingho, ian, christine, nathan, luka, cam}
```

```
{{65, 18, 12}, {35, 13, 7}, {57, 19, 12}, {55, 18, 12}, {54, 19, 12},
 {42, 7, 12}, {33, 6, 12}, {21, 4, 12}, {22, 7, 12}, {20, 5, 12}, {15, 4, 12},
 {12, 2, 12}, {12, 4, 12}, {10, 0, 12}, {9, 1, 12}, {8, 1, 12}, {5, 1, 11}}
```

To make sure our final table is formatted nicely, here are some functions to call certain strings of players' names as well as team names.

```
getname[1] = "Jay"
getname[2] = "Aaron"
getname[3] = "Jordan"
getname[4] = "Aayush"
getname[5] = "Pat"
getname[6] = "Adam"
getname[7] = "Huma"
getname[8] = "Joe"
getname[9] = "Erik"
getname[10] = "Paul K"
getname[11] = "Paul Z"
getname[12] = "Ming-Ho"
getname[13] = "Ian"
getname[14] = "Christine"
getname[15] = "Nathan"
getname[16] = "Luka"
getname[17] = "Cam"
```

```
Jay

Aaron

Jordan

Aayush

Pat

Adam

Huma

Joe

Erik

Paul K

Paul Z

Ming-Ho

Ian

Christine

Nathan

Luka

Cam
```

```
getteam[n_] := If[n == 1 || n == 7 || n == 8 || n == 11,
  "Because They're Big", If[n == 2 || n == 9 || n == 10 || n == 13 || n == 15,
   "Non Bosco", If[n == 3 || n == 4 || n == 16 || n == 17, "Angela Merkel's Bones",
    If[n == 5 || n == 6 || n == 12 || n == 14, "TAQB:WFP"]]]]

gridrow[n_] := {getname[n], getteam[n], playerlist[[n]][[1]],
  playerlist[[n]][[2]], playerlist[[n]][[3]], points[playerlist[[n]]],
  ppg[playerlist[[n]]], pptu[playerlist[[n]]], tensperneg[playerlist[[n]]]}

Grid[{
  {"Player", "Team", "Tens", "Negs", "Games", "Points", "PPG", "PPTU", "TPN"},
  gridrow[1], gridrow[2], gridrow[3], gridrow[4], gridrow[5], gridrow[6],
  gridrow[7], gridrow[8], gridrow[9], gridrow[10], gridrow[11], gridrow[12],
  gridrow[13], gridrow[14], gridrow[15], gridrow[16], gridrow[17]


 }]
```

And finally, we can see all of the statistics, arranged in this table.

Player	Team	Tens	Negs	Games	Points	PPG	PPTU	TPN
Jay	Because They're Big	65	18	12	560	46.67	2.333	3.611
Aaron	Non Bosco	35	13	7	285	40.71	2.036	2.692
Jordan	Angela Merkel's Bones	57	19	12	475	39.58	1.979	3.000
Aayush	Angela Merkel's Bones	55	18	12	460	38.33	1.917	3.056
Pat	TAQB:WFP	54	19	12	445	37.08	1.854	2.842
Adam	TAQB:WFP	42	7	12	385	32.08	1.604	6.000
Huma	Because They're Big	33	6	12	300	25.00	1.250	5.500
Joe	Because They're Big	21	4	12	190	15.83	0.7917	5.250
Erik	Non Bosco	22	7	12	185	15.42	0.7708	3.143
Paul K	Non Bosco	20	5	12	175	14.58	0.7292	4.000
Paul Z	Because They're Big	15	4	12	130	10.83	0.5417	3.750
Ming-Ho	TAQB:WFP	12	2	12	110	9.167	0.4583	6.000
Ian	Non Bosco	12	4	12	100	8.333	0.4167	3.000
Christine	TAQB:WFP	10	0	12	100	8.333	0.4167	inf
Nathan	Non Bosco	9	1	12	85	7.083	0.3542	9.000
Luka	Angela Merkel's Bones	8	1	12	75	6.250	0.3125	8.000
Cam	Angela Merkel's Bones	5	1	11	45	4.091	0.2045	5.000