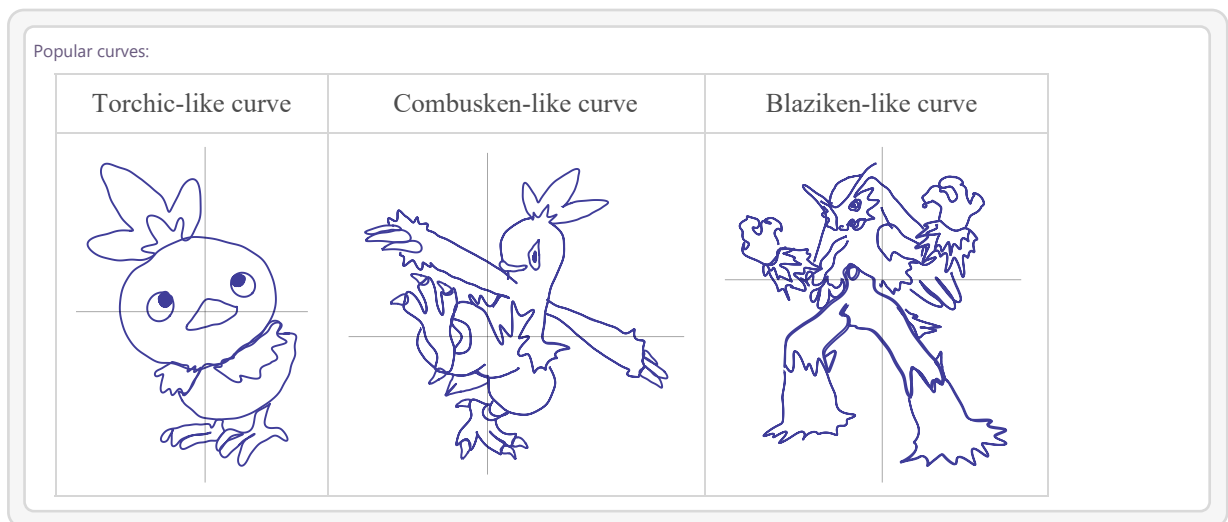


Pokémath: Group Work 4

Name _____

The Pokémon® Professor found a mysterious note about the CP, IV's and level of the next Pokemon the sinister team is targeting. Unfortunately, the note was partially shredded, so we don't have all the information we need. We need to complete this CP calculator so we can figure out what Pokemon these grunts are after. Then, we can set a trap!

This activity has two purposes. The first is to get comfortable in excel since you will use it for project 1. The second is to build your own stat calculator!



Getting Started

Download and open the file GW4 Execl.xlsx. **EVERYONE IN THE GROUP** will need to download the file and make the calculator!

Some spreadsheet basics!

Spreadsheets record and analyze numerical data!

Each little rectangle is called a cell.




The rows are numbered, the columns lettered. So cell B11 contains the number 0.306057.

Set up the spreadsheet

To the right of "Level" and "CPM", make labels for columns: attack, defense, unrounded HP, HP, unrounded CP, and CP.

Then find 6 cells to put the base stats (3 cells) and IVs (3 cells) for the Pokémon you want to calculate. It can be off to the side, row or column, whatever makes sense to you. Make sure to label these cells. Once the calculator is complete, you can return to these cells and change the base stats and IVs in them to calculate for a totally new Pokémon®.

Let's start with a Torchic. Here are the base stats (Note: **this website has them in the order HP, attack, defense**). You may pick any IVs for now (possibly from a Torchic in your bag).

255		Torchic	128	130	87
256		Combusken	155	163	115
257		Blaziken	190	240	141

Compute attack (formulas)

Recall

$$\text{Attack} = (\text{BaseAttack} + \text{AttackIV}) * \text{CPM}$$

So on my notebook I want to put that formula in cell C2. When you put an “=” sign in a cell, it will become a formula. You can then enter other cells with mathematical operations and it will put the calculated number in that cell even if the other cells change! For my notebook in cell C2 I typed:

$$=(K4 + K5) * B2$$

That should tell me the attack stat for my Pokémon® at level 1.

NOTE: your cells for BaseAttack and IVAttack may be in different cells, so you may need different letters and numbers in your formula!

Try to Copy and Paste

Copy and paste your formula to all the other cells in the “attack” column. Hint: Try clicking and dragging to select many cells at once.

Does it work?

Double click on a cell to see the formula. What went wrong?

You want to use the CPM for each level, but the SAME base stats for each calculation. To do this “lock” the cells in your formula. Go back to cell C2 and try:

$$=(K\$4+K\$5)*B2$$

The “\$” should “lock” the cell. Now copy and paste to all other cells in the “attack” column. Now does it work?

Try it yourself!

Try to write the formulas for defense, unrounded HP, HP, unrounded CP, and CP. You will need the floor function. Can you find how to do the floor function in Excel on Google?

Works for any Pokémon[®] !

Can we figure out which Pokémon[®] the grunts are after?

The shredded note said that the grunts are going to steal a Blaziken with good IVs: 13 Attack IV, 13 Defense IV, and 13 HP IV, and it is level 30. The Pokémon[®] Lab has 3 Blazikens with those IVs:

Blaziken A, with CP 2155.

Blaziken B, with CP 2394.

and Blaziken C, with CP 2594. Which one are they after?

Your Buddy!

Open Pokémon[®] GO and put in the base stats and IVs for your buddy Pokemon.
What level is your buddy?

Someone New!

Catch a Pokémon[®] from nearby and plug in its base stats and IVs.
What level is that new Pokémon[®]?

Turn in your CP Calculator online

Save it somewhere handy!

Both you and your partner will need a copy of the handy spreadsheet later in the semester. So be sure you both have saved the excel file somewhere you can find it in the future!