



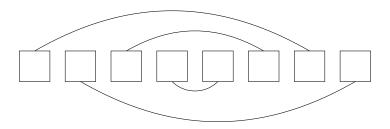
Tutorial Crossing Puzzle 1

One of the first stops on your Pokémon adventure is Viridian City, where a rambling old man accosts you in the middle of the road, insisting on giving you a tutorial on how to catch Pokémon. While he seems a bit mixed up, you manage to humor him long enough for him to wrap up his spiel, ending with the following puzzle.

"What I'm trying to say is, only a trainer that has several of these can possibly become HIPCONAM."

I J I W U L O R A M N P
Y D H S U T L B Q O Q H
A S T H O G T J I L M S
Y Y F V F C W S D N T N
E M G X C W F R G R I E
R D G B O Z Y S H A Y J
Y D N S R P Y G O F Y K
Y G I I T A G A O N D R
I H B V W B S C I W W F
G L E C E T C I R P R U
S P E T A N Z B E U V Q
E K T F X D W H Z Y T C

Dragon Electric Fighting Grass Ghost Normal (×2) Water







Clearing the Way

Puzzle 2

During your travels you hear that a Snorlax has blocked the way through Route 12. With your Pokémon Flute at the ready, you arrive only to discover that in fact, it's eight other Pokémon blocking your path instead.

Abra

Clefairy

Ekans

Geodude

Beedrill

• Dugtrio

Fearow

Haunter

Clearing up this mess will be difficult, so you begin by identifying the levels of each of the wild Pokémon. In doing so, you may just discover a trait that any successful Pokémon trainer needs to have.

- The levels of all the Pokémon add to 86.
- Geodude has the lowest level.
- Clefairy has the highest level.
- Ekans and Haunter are the only pair that share the same level.
- Dugtrio and Geodude's levels differ by one.
- Ekans and Dugtrio's levels differ by one, and add to nine.
- Abra, Beedrill, Clefairy, and Fearow's levels are all two-digit numbers.
- Abra's level is a perfect square number.
- Beedrill and Fearow's levels are both even numbers.

- Clefairy's level is the only number containing the digit 2.
- Fearow's level is less than Beedrill's level.
- Abra's level is the only multiple of 8.
- Beedrill and Clefairy's levels may be divided by a common whole number greater than one.
- Clefairy and Fearow's levels may be divided by a common whole number greater than one.
- Clefairy and Abra's levels cannot be divided by a common whole number greater than one.
- Every level is between 1 and 26.



★★★☆

The Name Rater

Puzzle 3

As your adventure continues, you find yourself in Lavender Town, home of the famous Name Rater. He explains that while Trainers often like to give their Pokémon cute nicknames, he's very particular about the rules for an Excellent nickname. (For clarity, a vowel is any of the letters A/E/I/O/U, and a consonant is any other English letter.)

- Rule 0: A is an Excellent nickname.
- **Rule 1:** If an Excellent nickname ends with a vowel, adding a consonant to the end of it creates a new Excellent nickname.
 - Example: EBRA→EBRAY
- Rule 2: Doubling an Excellent nickname creates a new Excellent nickname.
 - Example: ARI→ARIARI
- **Rule 3:** Replacing three consecutive vowels in an Excellent nickname with a consonant creates a new Excellent nickname.
 - Example: TAEIOU→TABU
- Rule 4: Removing two consecutive consonants from an Excellent nickname creates a new Excellent nickname.
 - Example: CARRYL→CARL
- Rule 5: Exchanging the consonants in an Excellent nickname with other consonants creates a new Excellent nickname. Similarly, exchanging the vowels in an Excellent nickname with other vowels creates a new Excellent nickname.
 - Example: PIKA→TUBE
- Only nicknames that can be created by applying one or more of these rules are Excellent.

To test your skills, the Name Rater asks you to identify the seven Excellent nicknames out of the fifteen listed on the provided Rating Sheet. To get you started, a few of these nicknames have been solved for you.

You'll know when you've solved this logic puzzle correctly: the first letters of the seven Excellent nicknames will reveal another great (but not Excellent) word for a nickname!



The Name Rater

Rating Sheet

1. MANKAY

6. EEVOL

11. AERODYCTL

It seems there's no way to construct this name using the Name Rater's rules...

2. ULTRAMON

It seems there's no way to construct this name using the Name Rater's rules... 7. NOHTYP

12. EWE

 $\begin{array}{c} \text{A (Rule 0)} \\ \rightarrow \text{AAAAAAAA (Rule 2, three times)} \\ \rightarrow \text{AAAAAAAAB (Rule 1)} \\ \rightarrow \text{ABABB (Rule 3, twice)} \\ \rightarrow \text{ABA (Rule 4)} \\ \rightarrow \text{EWE (Rule 5)} \end{array}$

3. OMASTARE

 $\begin{array}{c} \text{A (Rule 0)} \\ \rightarrow \text{AAAAAAAAAAAAAAAA (Rule 2, four times)} \\ \rightarrow \text{ABABBABA (Rule 3, four times)} \\ \rightarrow \text{OMASTARE (Rule 5)} \end{array}$

8. SLIQUID

13. PARACENT

4. VOLTEON

9. ICHU

14. DRAGONAT

5. GENGASKHAN

10. KADABARA

15. RAGMAR

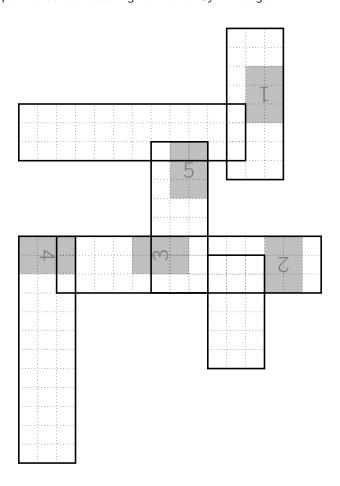




Hitting the Gym

Puzzle 4

To become Pokémon champion, you'll need to battle numerous Gym Leaders. While many require trainers to pass through a gauntlet of Pokémon battles, other Leaders are known to pose tricky puzzles to confound would-be challengers. They say in a land far from Kanto, there is a blind Gym Leader who requires visitors to complete the following puzzle before battling her for a Gym Badge.



RED BLUE YELLOW GOLD SILVER CRYSTAL





Route to Victory

Metapuzzle

You've finally reached the end of your journey, having reached the Pokémon League on Indigo Plateau, located in the northwest corner of Kanto. This final stop for would-be Pokémon champions is home to the Elite Four, the top four trainers in the region!

Each member of the Elite Four has chosen one Pokémon to use in battle. Of course, if you compare the provided Pokédex with the memories of your journey, anticipating their choices should be a Pokémon snap!

Once you've figured that out, you should reference the Pokédex to choose one of the six remaining Pokémon to battle each member of the Elite Four, leaving two unused. You may not always have the edge in experience levels, but if you can ensure that you have the type advantage in all four battles, you'll realize something about the Elite Four's intimidation tactics.

	Elite Four sen	ds out:			Y	ou send o	ut:	
Battle 1:			LV7 2	VS _				L∨5 3
Battle 2:			LV4 8	vs _				LV4 4
Battle 3:			∟∨4 5	vs _				LV4 1
Battle 4:			LV1 7	VS _				LV3 6
1		3	4		6	7	8	_

The following is not a puzzle! :-) This evening's puzzles were adapted from the 2017-18 MaPP Challenge competition for secondary math students. Unlike many math contests, the MaPP Challenge gets students excited about mathematical problem-solving by challenging them with fun puzzles like the kind you're familiar with from Puzzled Pint, not boring algebra problems. And like Puzzled Pint, these puzzles are made public under a permissive license so anyone can download and enjoy/adapt these puzzles freely. If you'd like to get involved with supporting mathematics education using puzzles, please visit MaPP's website (http://mappmath.org) for more information or contact info@mappmath.org. Thanks! -Steven & Zack



Route to Victory

Pokédex

Name	Type	Description				
Charmander	Fire	Pushes itself to the extreme.				
Chansey	Normal	Caring and thoughtful.				
Clefairy	Fairy	Keeps in time with others.				
Dratini	Dragon	Cautious and level-headed.				
Dugtrio	Ground	Works well with other Pokémon.				
Hitmonchan	Fighting	Strikes hard and fast.				
Hypno	Psychic	Minds its own business.				
Koffing	Poison	Out to make a name for itself.				
Shellder	Water	A pearl of a Pokémon.				
Tangela	Grass	Caught up in itself.				

Opponent Pokémon Type

		Normal	Fire	Water	Grass	Fight.	Poison	Ground	Psych.	Dragon	Fairy
Your Pokémon Type	Normal										
	Fire				\checkmark						
	Water		\checkmark					√			
	Grass			✓				√			
	Fighting	√									
	Poison				✓						√
	Ground		√				√				
	Psychic					√	√				
	Dragon									✓	
	Fairy					√				√	