WHEN I’M FIFTY-FOUR
or,
“WHAT DO YOU GET IF YOU MULTIPLY SIX BY NINE?”

As I turn 54, I realize what a wonderful number that is. There are so many ways 54 turns up, and we’ll be exploring some of them in these puzzles!

Although this is a set of puzzles with a thematic relationship, there is no meta. If you feel like creating one, spaghetti-style, I’d love to see what you invent.

THANK YOU

Thanks to Yossi Fendel for test-solving and providing extremely helpful suggestions for improvements, to Scott Weiss for test-solving, and for Nathan Curtis for advice on constructing a Pathfinder.

IF YOU ARE PRINTING THIS

I suggest you start printing on page 2. You don’t need this cover page, and if you skip it, then the two 2-page puzzles end up on facing pages instead of on opposite sides of the same sheet.

TO CHECK YOUR ANSWERS ONLINE

There are links from my blog to an online answer-checker: https://nmhz.wordpress.com/2023/03/10/birthday-puzzles/
A DECK OF CARDS

Even if I won the lottery, would I change where I call home?

Note: For accessibility and for solving convenience, you can select the hidden text behind the image for a transcription of the cards.
TWO RUBIK’S CUBES

These cubes are entangled; you must resolve which parts of each clue are spin up, which are spin down, and which will help you determine:

If I assert that $54 = 27 \times 2$ and $27 = 3^3$, then what (in my world, of course) are 8 and 21?

**ORANGE (4)**
- **abc** Canine facial feature
- **def** Norma ____ , originally
- **ghi** Give ace a gun to space between two items
- **adg** Unit of energy for genetic material
- **beh** To poets, example above club for motorists
- **cfi** Be a sales agent for jewel

**BLUE (3)**
- **ghi** Body part clothing retailer
- **jkl** Spy group snake men
- **mno** Pigpen delivery company ___
- **gjm** Wildebeest muscles
- **hkn** Snake decomposition
- **ilo** Is permitted to tub fathers

**WHITE (4)**
- **gjm** Polaroid organization that supports open-source math function
- **dpq** Matrix character crater’s edge
- **ars** Alien’s condensate
- **gda** Along with standardized test inventor
- **jpr** Insect egg “Edwin”
- **mqs** Plant disfluencies

**RED (4)**
- **mno** Dump things that are going well
- **qtu** Need to pay ’o Sole ’Tute ___
- **svw** President was victorious in instrument
- **mqs** Er, y’know, Pig Paul
- **ntv** Zadora II
- **ouw** Desire Boston team’s nickname

**YELLOW (4)**
- **oli** Root vegetable fluid
- **uxf** “Unfeeling First Lady” homage
- **wyc** Either, but not both, less than zero
- **ouw** Sulphur or oxide cash in Japan
- **lxy** Hail indifferent excitement
- **ifc** Once, a lot of memory for each

**GREEN (3)**
- **svw** Wind player was awarded wards as a prize
- **rzy** Poetic before receiving poetic but
- **abc** Attention: Persistently follow ambulances
- **sra** Married holy woman in France
- **vzb** Eureka! Italian gold!
- **wyc** Logic function starting with a minus sign

Your answer will contain four words.
What would I need to be published in LIFE?
How does someone like me handle his commute?
TRIPLE CHAI, PART 3

What could have been my alternate career? And what name would I have picked?

1. READY, SET... Your string is the word START
2. OR NOT Replace the last two letters with the same letter to get a pause
3. EDUCATION Delete any letters that are not in the word SCHOOL
4. E-COMMERCE Add the letter E to the start of your string
5. IDLE Prepend three consecutive letters so your string starts with a decline
6. SPIN CYCLE Append your next spin as a word to the end of your string, then use that spin as usual to take your turn
7. FOR SHORT Replace your string with a well-known nickname
8. EIGHT IS ENOUGH Truncate your string after the eighth letter
9. MIXED UP Reposition the first letter of your string to make a pair of synonyms
10. DOUBLE TIME Copy the start of your substring up to but not including the first S
11. HOW LONG? How many letters are in your string? Add the spelled-out number to the start of your string
12. GO WEST! Replace two USPS abbreviations with the abbreviations of the states to their immediate west
13. DO-SI-DO Exchange the third and fourth letters of your string
14. GO HALFSIES Jump back to square 7 (but do not follow its instructions)
15. MORSE INVERSION Replace the last letter of your string with what you’d get in Morse code if dashes became dots and vice versa
16. DON’T BE ODD, GET EVEN! Delete all the characters in odd-numbered positions
17. GRADUATION DAY Replace ml with cc in your string
18. BONUS! Take another turn
19. BECOMING DEFINITE Replace every “a” with “the”
20. REVERSE GEAR Take the substring between two “O”s and reverse it
21. SWING SHIFT Shift the first letter three places in the alphabet
22. OOPS Undo the last thing you did to your string
23. INTERNATIONAL RELATIONS A four-letter English word can be found twice in your string. Insert the Spanish for that word before the last pair of letters
24. SWAP MEET Exchange the third and fifth vowels
25. LAST-MINUTE CRISIS Go back to square 13
26. SUCCESS! Enjoy your four-word answer!

Note: intermediate strings will usually not form valid words or phrases
What is a major part of my job as a Data Scientist?
Clues list where each entry begins, what direction it starts in, how many letters it contains, and where it ends. The starting directions are “inward”, “outward”, “clockwise”, or “counter-clockwise.” Every answer (except one, because I made a mistake in constructing) will change direction at least once and maybe more.

Lines and arcs show legal transitions from one electron to another, but not all connections are used, and some may be used more than once. When you are done, every electron will have been used exactly twice.

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<th>Start Dir</th>
<th>End</th>
<th>Clue</th>
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<td>Out</td>
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<tr>
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LIV LONG AND PROSPER

NOTE: The certificates used in this puzzle are not actually from my family research.

As more and more old genealogical records have been digitized, they have illuminated connections between matching DNA segments.

What do the results of my research deliver?