

CS50 Presents

# CS50x Puzzle Day 2024

with thanks to our friends at Meta

**April 5–8, 2024**

- This packet contains 9 puzzles. The first 8 puzzles are independent of one another. The final puzzle is a metapuzzle: it requires answers from at least 6 puzzles in order to solve it.
- The answer to each puzzle is a single word or short phrase in English.
- You may use the internet and any other resources at your disposal, including artificial intelligence (AI).
- You are encouraged (but not required) to work on a team with 1, 2, or 3 classmates or friends, either in person or online. You may not share hints or answers with other teams.
- Take photos while you work on the puzzles (or screenshots of your team collaborating online)! Share them at <https://cs50.ly/photos> if you'd like!
- Submit your answers at <https://cs50.ly/submit> by 23:59 on Monday, April 8, 2024. If working on a team, only one member of your team should submit. If you submit multiple times, we'll consider your only most recent submission, which should contain all of your answers together.
- See <https://cs50.ly/puzzles> for all rules.
- Have fun and good luck!

# The Round of Music

*I like to hang out in the music room and imagine what I'd name my band if I had one. Every time I think about it, I come up with too many ideas to count.*



A\_P\_O\_L\_L\_O      5  
Rocket



*By the author of THE TIPPING POINT*

\*  
The Power of Thinking  
Without Thinking

B\_L\_I\_N\_K      440  
22 minutes?

Malcolm Gladwell



C\_E\_N\_T      10  
Dime



6\_d\_0\_0\_0\_0?      50  
?



M A T C H B O X      97's  
toy cars?



O L D      20  
?



(about Titanic)      182  
Blink?

**5, 440, 10, 50, 97's, 20, 182**

# Zoo Pals Mystery Dinner

You find some recipe cards in the kitchen cabinet.

	<b>Name:</b> ?????? ???? <b>Rating:</b> 8  Died from baguette bludgeoning
	<b>Name:</b> ??????? ???? <b>Rating:</b> 7  Fatal hang gliding accident
	<b>Name:</b> ????? ???? <b>Rating:</b> 8  Decapitated
	<b>Name:</b> ??????? ?? ??? ????? <b>Rating:</b> 1  Went into the forest and never returned



**Name:** ????? ?? ??? ?????

**Rating:** 8

Fell into a pit trap



**Name:** ????? ?? ? ????????

**Rating:** 8

Found strangled to death in bedsheets



**Name:** ??????? ?????

**Rating:** 3

Lost the coin flip



**Name:** ?????????? ????

**Rating:** 11

Died from sounds exceeding 200 dB



**Name:** ?????????? ????

**Rating:** 9

Drowned while deep sea angling



**Name:** ????? ???????

**Rating:** 9

Silenced



**Name:** ????? ??????

**Rating:** 6

Scratched up by wolves



**Name:** ?????? ?????????? ?????????

**Rating:** 6

Lost contact in Pikes Peak

# Room Décor Protocol

The garish ornamentation of the bedroom instantly gives you a flashback to when you and your roommates tried to furnish your last place. With each of you requiring different conditions, it's a wonder you were able to navigate competing priorities to come up with an arrangement that could satisfy everyone!

## The House



As shown in this diagram, the **house** consists of 4 rooms - **bathroom**, **bedroom**, **living room**, and **kitchen**. The **bathroom** and **bedroom** are upstairs, while the **living room** and **kitchen** are downstairs.

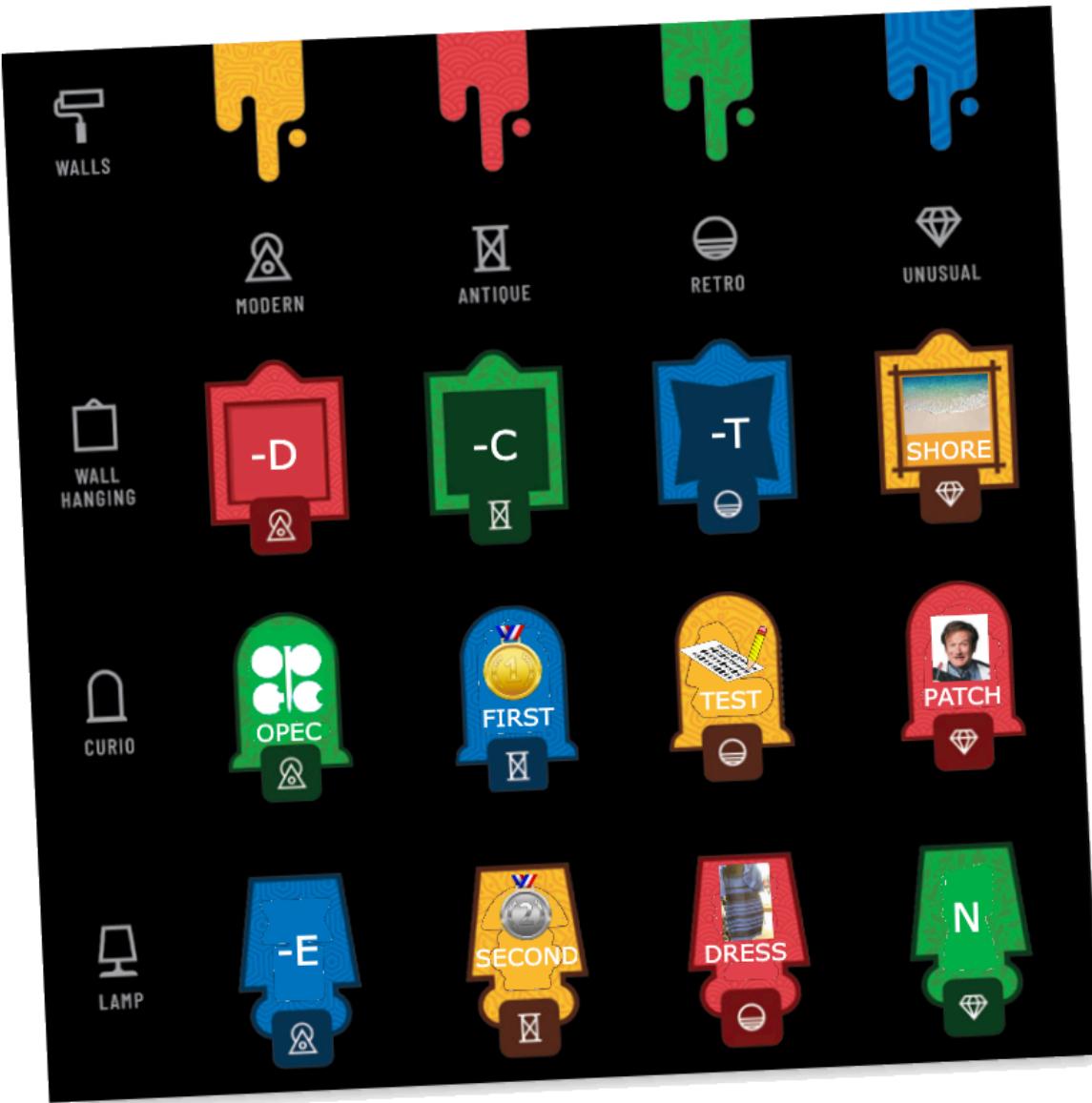
The **bathroom** and **living room** are on the left side, and the **bedroom** and **kitchen** are on the right side.

Each room has a **wall color** (red, yellow, blue, or green) and can hold up to **3 objects** (1 of each category) in the order shown in the room.

### The Objects

There are 3 different categories of **objects**: **wall hangings**, **lamps**, and **curios**. Objects will come in 4 different **colors** (red, yellow, blue, and green) and 4 different **styles** (*modern*, *antique*, *retro*, or *unusual*). However, not every category of **object** comes in every **style**. The chart below shows the only **12** possible **color/style** combinations. That means there is no object that is both *modern* and yellow. It also means that a *modern lamp* is always blue, a *modern blue object* is always a **lamp**, and a *blue lamp* is always *modern*.

Each room contains a **lamp** slot, **wall hanging** slot, and **curio** slot (in some order) in which an **object** of that category can be placed. If there is nothing in one of these slots, it is considered an **empty** slot.



Important: **wall color** works a little differently from **objects**. While every **object** has both a *style* and a **color**, **wall color** has only a **color**. In addition, **object** slots can be left **empty**, but every wall must have a **color**.

### The Conditions

After some tense negotiations, you and your housemates were able to agree on an extensive set of conditions according to which you would decorate the **house**:

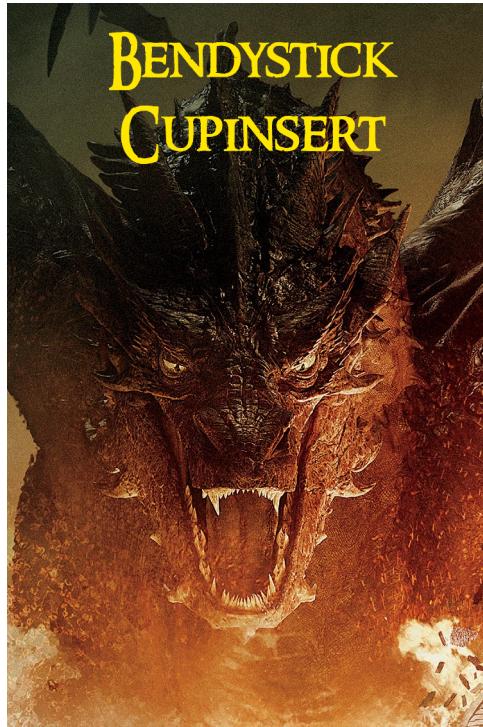
1. There must be a **blue** lamp in the bedroom.
2. Each of the two cool **colors** (**blue** and **green**) must not appear on the same side of the house as the other.
3. There must not be any *modern* **objects** downstairs.
4. The bathroom must contain only one **color**.
5. There must not be any **empty** slots upstairs.

6. Each room must contain a curio of a different **color**.
7. The house must contain only one *retro object*.
8. There are more **red objects** on the left side of the house than on the right side.
9. Each room in the house must be painted a different **wall color**.
10. In the upstairs of the house, the **wall color** must match the **color** of at least one of the **objects** in the room. In the downstairs, the **wall color** must not match the **color** of any of the **objects** in the room.
11. The left side of the **house** must contain one more **object** than the right side of the house.
12. Exactly one type of **object** (same category, **color**, and *style*) must appear in multiple rooms. Every other **object** type must appear in at most one room.
13. There are more *antique objects* downstairs than upstairs.
14. There must be more *unusual objects* than *modern objects* in the house.

When all of you were satisfied with how the house had turned out, there was nothing left to do but live in it.

# Roleplay

*That hot British actor is just in **everything**, isn't he? But who (last name, where applicable) is he playing?*

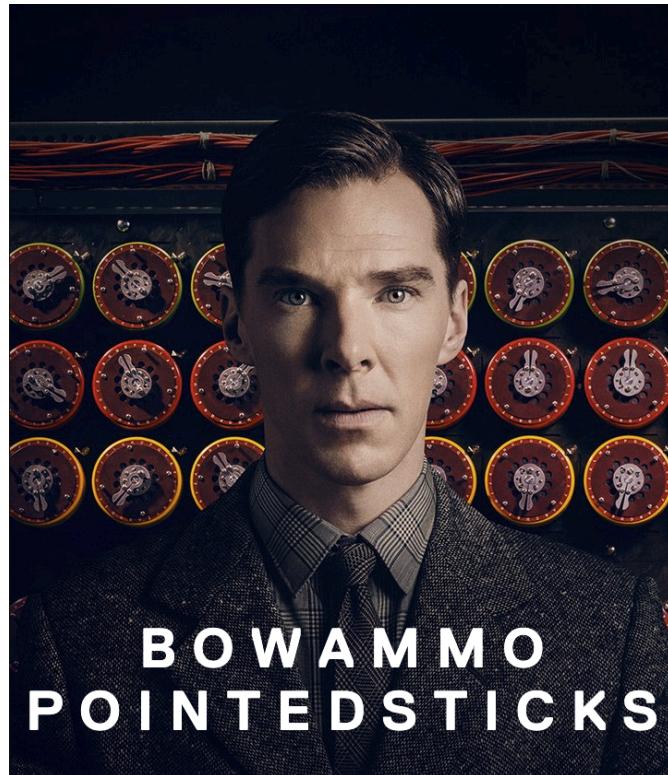


Straw  
Smaug



BREAKUPOF MARRIEDPAIR

Divorce  
Julian Assange



BOWAMMO  
POINTEDSTICKS

Arrow

Alan Turing



BURLINGTON  
CHAMPLAINSTATE

Doctor Strange



agent classified



Panda

Khan Noonien Singh (aka "John Harrison")



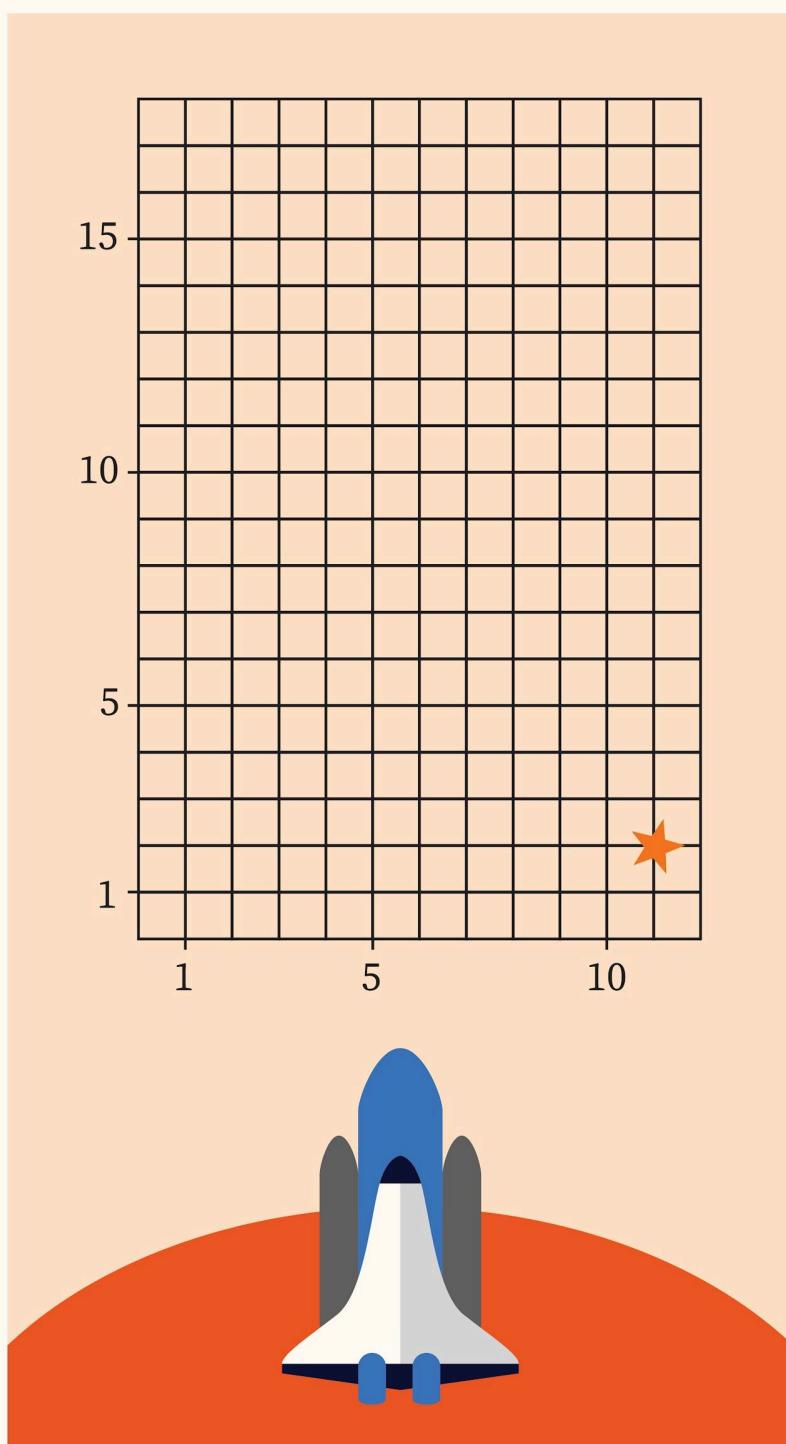
BIGTHICKBOWL PESTLEMATE

Sherlock Holmes

# Books

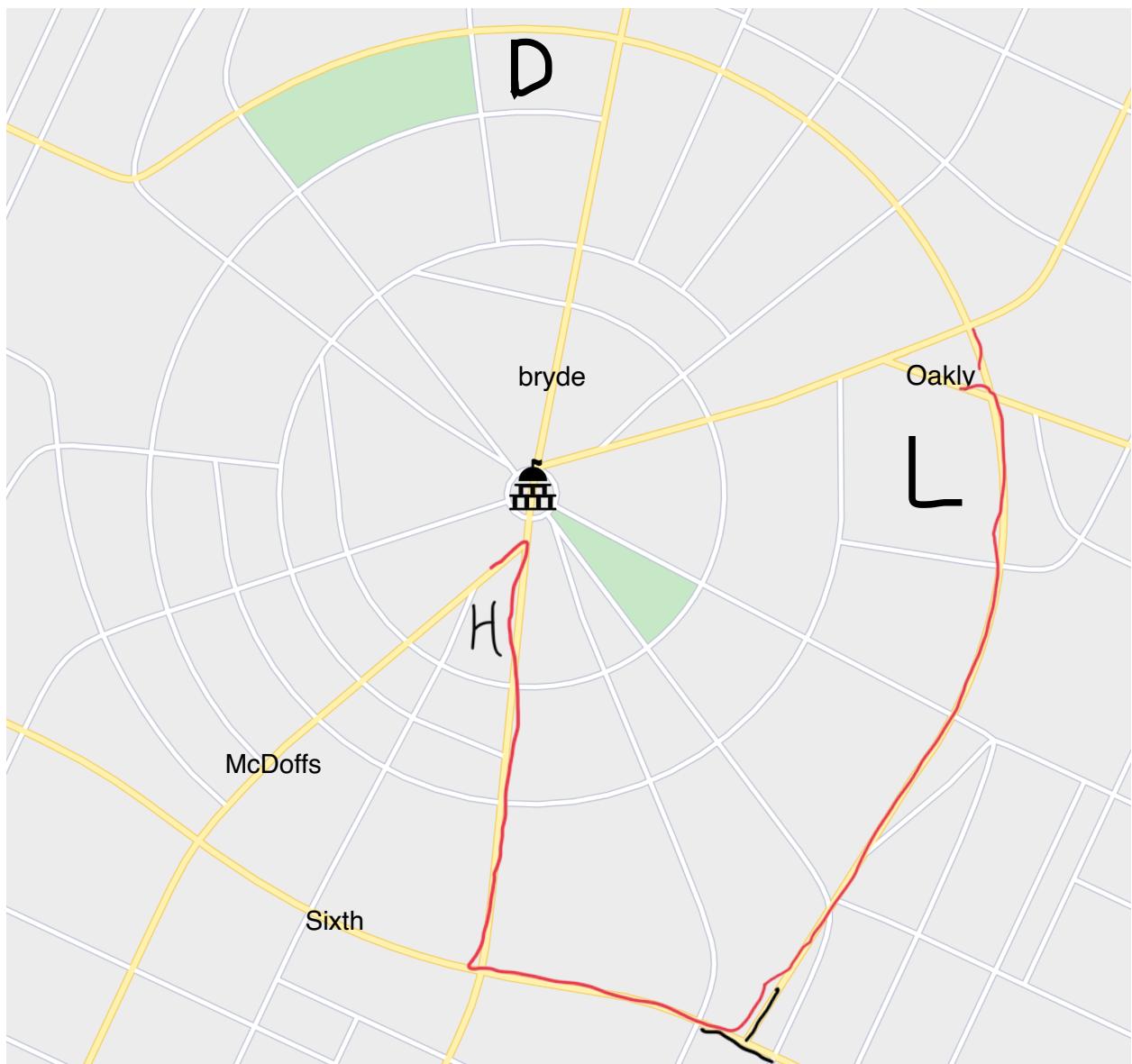
Ugh, the lights in the library always flicker; I wonder if there's faulty wiring somewhere ... say, do some of these look off to you?





# MapGPT

ChatGPT is so much fun to use! Too bad it isn't good at creating maps. Decipher these directions to determine the name of each major (yellow) road used in one of the routes, and place each building mentioned in the driving instructions just past an intersection of two major roads. City Hall has been placed for you. The minor streets will not be used by MapGPT. Also, because MapGPT is imperfect, it might not generate an especially efficient route between two places. When you're done, take the *intersection* of each building to reveal a style of travel that explains MapGPT's route.





How do I get from the library to the dentist?



From your position on Oakly, take the south turn, then turn right. Turn right on Byrde, pass City Hall, and turn left. Your destination will be on the left.



Okay, and how do I get from here to the nearest grocery store?



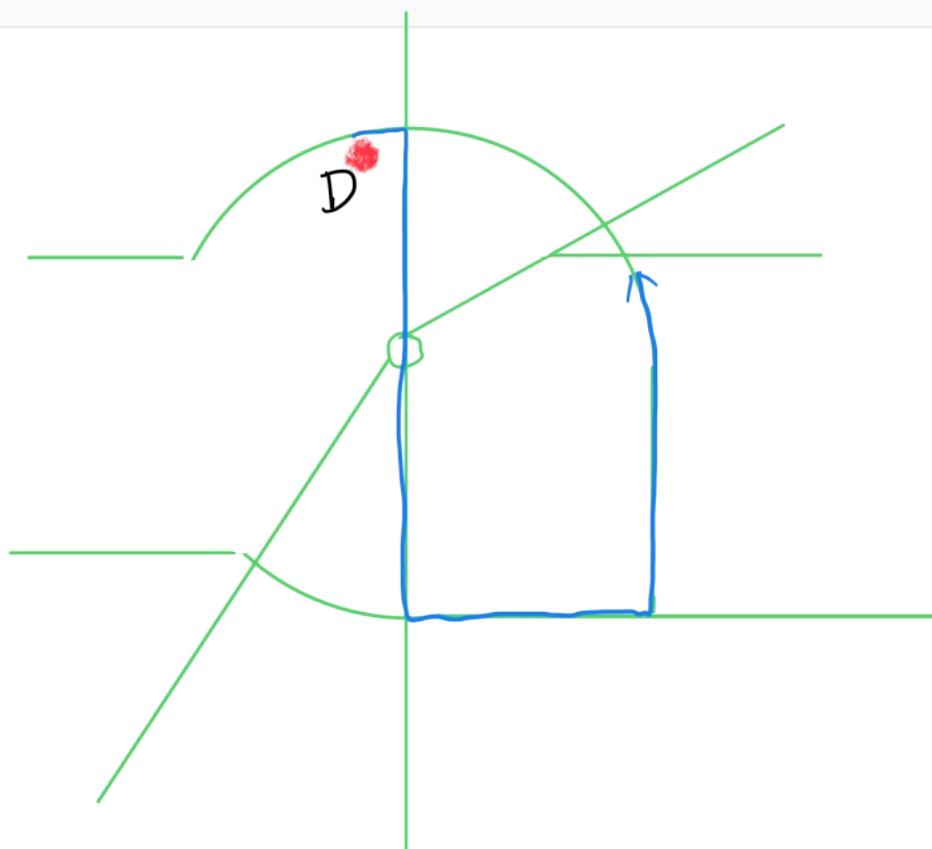
Head south on Byrde, then left at Jynx. Turn right on McDoffs. Take the first right after you pass the library, at the autoshop. Turn on Weasel (towards city hall) then right at the T. Finally, turn right on Sixth and your destination will be at the next intersection.



Okay, last errand of the day - how do I get to the hardware store?



Head east on Sixth. Take the first left, and keep going until you reach the dentist. Turn right, then right at the intersection with the library. Turn right at the cemetery, then turn right. Turn right at the T, then take the next right. Take the next left and the hardware store is on your immediate right.



# Connect Four

*Errata (04-04-2024): the fourth picture in this puzzle has been updated to match the web link.*

*He dusts off an odd looking box in the game room and sighs.*

*"People never put these back right. All the cards are mixed up!"*

LOBSTER	STONE	SEVEN	WASHINGTON
THE ONE	FIRE HYDRANT	FIVE	NORTH FIVE, NORTH, POP, ROCK FAMOUS ????S COOPER, CRUISE, STONE, WASHINGTON <b>CRUISE</b> COLORED ??? CARDINAL, CHERRY, FIRE HYDRANT, LOBSTER
POP	CHERRY	FIFTEEN	FIFTEEN, SEVEN, THE ONE, TWENTY TWO ????? SONGS <b>ROCK</b>
TWENTY TWO	COOPER	CARDINAL	????? SONGS FIFTEEN, SEVEN, THE ONE, TWENTY TWO ????? HUMAN? RED TAYLOR SWIFT

<https://connections.swellgarfo.com/game/-NsOZtgjHxR9rlCDJws5>

?  
HUMAN?  
RED  
TAYLOR SWIFT

MONTAGUE	PARROT	PLANK	STIFF
CARBON	TOUGH	COMPLEX	DIFFICULT CHARACTERS IN "?????" & "?????" CAPULET, LAURENCE, MONTAGUE, TYBALT
LAURENCE	ONYX	CAPULET	JET THINGS A ????? MIGHT HAVE FLAG, PARROT, PLANK, TREASURE
TYBALT	TREASURE	FLAG	EBONY SHADES OF ????? CARBON, EBONY, JET, ONYX SYNONYMS OF ???? COMPLEX, DIFFICULT, STIFF, TOUGH

<https://connections.swellgarfo.com/game/-NbR9noMHOjbeu-coGxJ>

ROMEO & JULIET  
PIRATE  
STONE?  
HARD

JOEY	FILM	RAPUNZEL	LENS
LEE	GOLDILOCKS	SPIELBERG	CHARACTERS FROM ?????S RACHEL JOEY, MONICA, RACHEL, ROSS ????? ???? PROTAGONISTS CINDERELLA, GOLDILOCKS, RAPUNZEL, SNOW WH
CAMERON	ANDERSON	MONICA	CINDERELLA FAMOUS ???????S ANDERSON, CAMERON, LEE, SPIELBERG
ROSS	SHUTTER	APERTURE	PARTS OF A ?????? APERTURE, FILM, LENS, SHUTTER <b>SNOW WHITE</b> FRIENDS FAIRY TALE DIRECTORS CAMERA

[https://connections.swellgarfo.com/game/-Nb\\_iyF6Kv7lnatlH5EG](https://connections.swellgarfo.com/game/-Nb_iyF6Kv7lnatlH5EG)

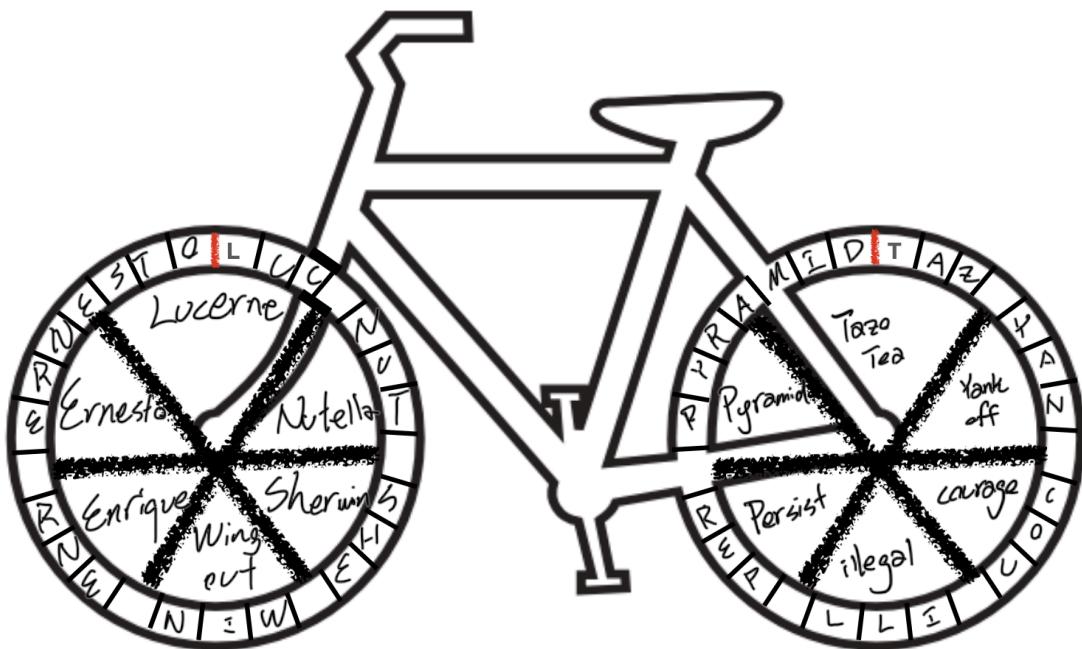
BOW	DEPARTED	HEART	PUBLIC THINGS ???? HAS ARROW, BOW, HEART, WINGS
LATE	AJAR	TRAFFIC	PAST DEPARTED, GONE, LATE, PAST ????? BASKETBALL, SUPREME, TENNIS, TRAFFIC
TENNIS	ARROW	GONE	WINGS SYNONYMS OF ???? AGAPE, AJAR, DIRECT, PUBLIC
SUPREME	DIRECT	AGAPE	BASKETBALL CUPID OVER? OPEN

<https://connections.swellgarfo.com/game/-NbRBQ6YuSz5dI2pJad9>



# Cycleword

As you enter the garage, you can't help but notice strange clues on the bike. As the wheels start spinning, the answers all seem to blend together and you wonder what's left.



## Front

- Ernesto** Mexico's most famous musician, according to Coco (7)  
**Lucerne** The Swiss home of the world's only 300M indoor shooting range (7)  
**Nutella** Chocolatey spread (7)  
**Sherwin** Paint partner to Williams (7)  
**Shooche** One of the opening acts for Jennifer Lopez's Dance Again World Tour (7)  
**Wing nut** Flying fastener (4 3)

## Back

- Antlers** Parts of a buck (7)  
**Courage** Valorous (7)  
**Illegal** Like playing musical instruments in public in Singapore (7)  
**Persist** Show stronger tenacity (7)  
**Tazo Tea** Herbal brand formerly owned by Starbucks (4 3)  
**Yank off** Forcefully remove (4 3)

*Hint: The answers to the 6 clues for each wheel are in alphabetical order above, but not on the wheels!*

# [Meta] A Haunting Conclusion

Note: This puzzle is a **metapuzzle**, so it uses the answers from the other puzzles! We only recommend trying to solve this puzzle if you've already solved at least six of the eight previous puzzles. The more feeder puzzles you solve, the easier this puzzle gets!

With everything going on in this house, it's clearly haunted. But what can we do about it?

