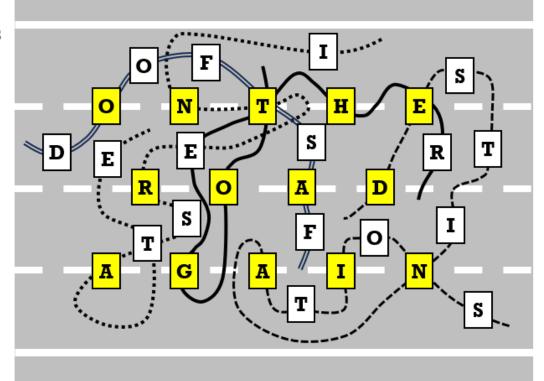
## July 2024 Road Trip Puzzle Set – Solutions



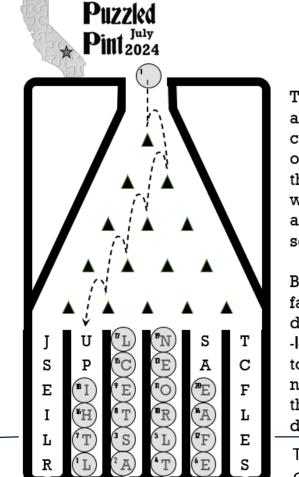
LET'S GET OUTTA HERE

"SIN ANTIDOTES" → DESTINATIONS the places they are ultimately intended to reach
"SOD OF FAT" → FAST FOOD quick, convenient meals
"TENSE TRAIT" → INTERSTATE a major highway such as I-95.
"EH, GET ROT" →TOGETHER in close proximity

My goodness – have you looked at the news lately!? The headlines are so **mixed up!** It seems as though they are like that just to grab our attention, and then they end up having very little to do with the story that follows. **Along those lines**, take the four examples below. Unbelievable! They make us feel like we just want to hop in our car and drive, drive, drive – just to get away from all the craziness for a while...



The mixed up (scrambled) headlines anagram into the four words/phrases shown above. There is only one way these can be written into the grid above. The solution appears "along those lines" (the white dashed lines): **ON THE ROAD AGAIN** 



Plinko

The first stop on our road trip is Television City, CA, and of all the studios, we pick Studio 33 – home for well over halfa century to The Price is Right – a classic game show chock-full of prices and prizes and challenges, but one game above all the others is the game we came to play – and you surely know which one we're talking about: PLINKO! It is a game in which a little chip bouncing chaotically down a huge pegboard is the sole determinant of whether a contestant leaves rich or poor.

But we are handed not one chip, but 20! And as we climb the fateful ladder, our future on the line, we know what we must do to bring good luck: spell out "P-L-I-N-K-O-P-L-I-N-K-O-G-O-C-H -I-P-G-O" letter by letter – one for each chip we drop. Strange to think that each bounce off each peg is just a left/right, yay/ nay random outcome. When there is **none left**, it does seem there's just **one right** path. Good luck or bad, chips are gonna do what chips are gonna do. We'll just let them do it their way

The 20 chips correspond to the 20 letters in the phrase "P-L-I-N-K-O-P-L-I-N-K-O-G-O-G-O-C-H-I-P-G-O." Using binary code on these

letters tells us which way each chip will bounce off of each peg as it cascades down the board: "none left" and "one right" tells us that 0 = a bounce to the left and 1 = a bounce to the right.

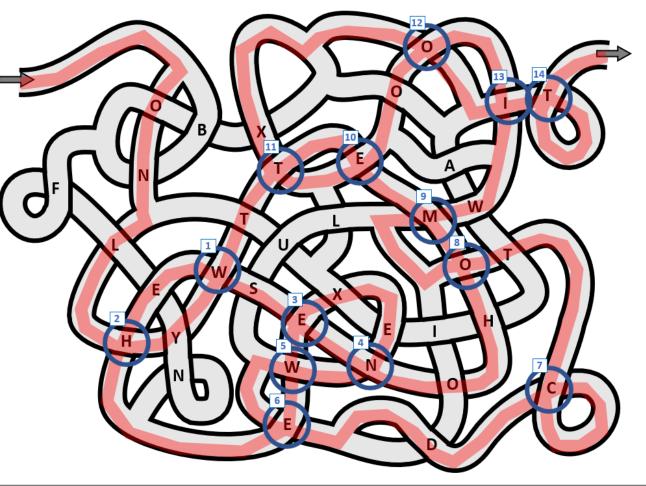
Thus, the first chip down the board is P = 10000 = right-left-left-left-left. This is shown by the path on the board above, and the first chip will then land on the letter "L." Chip #2 = L = 00101 = left-left-right-left-right, which lands on an "A." This continues for all 20 chips, stacking up in their columns. [The letters that don't get covered spell out "JUST SPACE FILLERS," to confirm that they are not needed for the solve.] The letters that do get covered spell out (in the order they get covered) LAST LETTER IN EACH LINE. Reading top to bottom, the last letter in each line of the flavor text gives the solution: **FALL WHERE THEY MAY** 

II The Bridges of Madison County

No road trip would be complete without a visit to Madison County, Iowa. Who knew there were so many bridges there!? And who knew there were so many rules and regulations concerning how we can pass over and under those bridges!?

- We may not pass over or under the same bridge twice.
- We may not pass over two bridges in a row.
- We may not pass under two bridges in a row.
- We may cross our own path, but we must keep track of all such crossings in the order they occur.

Hopefully, we will figure out the optimum time to cross one of these Madison County bridges.



The puzzle becomes a maze with bridges. The path you take must alternate under-over-under-over... no two overs in a row, no two unders in a row. The unique path is shown above. The places where the path crosses itself, going under and over the same bridge have been circled, and the numbers represent the order in which the second crossings occurred. They spell out the solution: **WHEN WE COME TO IT** 



O R

н

A

Ν

D

Е

D

BEAST

WHITE

KNACK.

CRAMP

ROMAN

PLATE

TERSE

THICK

Routes & Ladders

The lines show which words on the left can be connected with which words on the right. The uncrossed letters between the lines can be read left to right: "READ EACH LINE IN THE ORDER IN WHICH THE LETTERS WERE CHANGED"

The top line connecting BEAST to LATCH is U-N-O-E-S but when read in the order in which the letters were changed for that ladder (1,5,4,3,2) read "U-S-E-O-N." The next line's letters read this way are "L-Y-T-H-E." Putting these all together:

"USE ONLY THE THIRD CHANGED LETTER IN EACH SERIES." The third changed letters in each series spells out the solution: SWAP MEET.

BEAST	WHITE	KNACK	CRAMP	ROMAN	PLATE	TERSE	ТНІСК
LEAST	WHILE	SNACK	CLAMP	WOMAN	PLACE	TEASE	THINK
LEA <mark>S</mark> H	WHALE	sl <mark>a</mark> ck	CLA <mark>\$P</mark>	WOMEN	PEACE	( <mark>E</mark> ASE	THINE
LEACH	SHALE	SLICK	CLASH	WOKEN	PEACH	CHASE	SHINE
LETCH	SCALE	SLICE	FLASH	WAKEN	BEACH	CHASM	SHONE
LATCH	SCALD	SLIME	FLESH	WAKED	BENCH	CHARM	SCONE
replacement o	rder						
1,5,4,3,2	4,3,1,2,5	1,2,3,5,4	2,4,5,1,3	1,4,3,2,5	4,2,5,1,3	3,1,2,5,4	4,5,1,3,2
USE ON	LY THE	THIRD	CHANG	ED LET	LET IN	EACH S	ERIES

FLESH

✓SCONE

LATCH

WAKED

•CHARM

SLIME

-BENCH

SCALD

н

т

Е



Next on the trip is a visit to an amazing place – The National Museum of Mathematics in New York City. As we arrive, however, the director rushes up to us, and explains she needs our help. Somebody snuck in and started replacing all of their math facts with math lies (AKA "alternative facts"). Conspiracy theories are already spreading that it was a space alien from the *fifth* dimension attempting to destroy our civilization by infecting it with fake math. How dastardly!

As we can see, they managed to get in four or five math lies (we know that  $24 + 25 \neq 2 + 3$ ), but they appear to have been interrupted and then just left a bunch of confused gibberish. We must cut out these eleven heptominoes and arrange them back into real math facts - facts that fit the framework of our mathematical knowledge – which every knows is a seven by eleven rectangle. Civilization depends on it!

I mean, face it, math is like two perpendicular lines...

The eleven heptomino pieces can be rearranged into the 7 x 11 rectangle shown at right. Note how each horizontal row yields a correct mathematical equality.

٠ŀ	4	=	1	+	3
Ш	2	х	12	+	1
Х	4	-	23	=	5
-	9	=	1	х	13
Π	2	хГ	25	+	11
+	3	-	19	=	8
-	17	=	18	÷	6
Π	4	Х	9	-	26
·ŀ·	2	-	7		4
+	15	=	8	+	21
=	20	÷	20	+	4
	-	$ \begin{array}{c} = & 2 \\ \times & 4 \\ - & 9 \\ = & 2 \\ + & 3 \\ - & 17 \\ = & 4 \\ \div & 2 \\ + & 15 \\ \end{array} $	=       2       x         x       4       -         -       9       =         =       2 $x$ +       3       -         -       177       =         =       4       x $\div$ 2       -         +       15       =	=2x12x4-23-9=1=2 $x / \Gamma$ 25+3-19-177=18=4x9 $\div$ 2-7+15=8	$=$ 2x12+x4-23=-9=1x=2 $\sqrt{1}$ 25++3-19=-17=18 $\div$ =4x9- $\div$ 2-7=+15=8+

The fifth column gives the solution – using simple decimal code top to bottom: 1 12 23 1 25 19 18 9 7 8 20 = **ALWAYS RIGHT** 





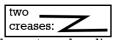
Know When to Fold 'em

Our road trip is drawing to a close, and we are eager to get back home. We have *four, five*, maybe six letters we've written to friends back home but haven't sent, so we think it would be fun to mail them from London (Arkansas, that is - not the actual London). Then, right in downtown London, it happens: we lose our GPS. Truly upset, we pull off the road and just start crying. What are we going to do? In desperation, we wipe our tears away, and with our vision still hazy, we rummage through the glove box. All we manage to find is this big folded-up piece of

ALIENS
<u>ALWAYS</u>
CHIP
<u>COME</u>
EAGER
FAKE
<u>FALL</u>
HAZY
MATH
<u>MEET</u>
<u>RIGHT</u>
<u>SWAP</u>
<u>THEY</u>
<u>WHEN</u>
<u>WHERE</u>
WIPE

paper with lines and colors and words and something cryptic: "US Interstate Map" written across the top. It must have belonged to the car's previous owner – some guy named Rand McNally. Anyway, this paper is just too big, and we know we somehow have to **fold it to a** 

smaller size to make it useful. It should take just two creases this way two \_\_\_\_\_

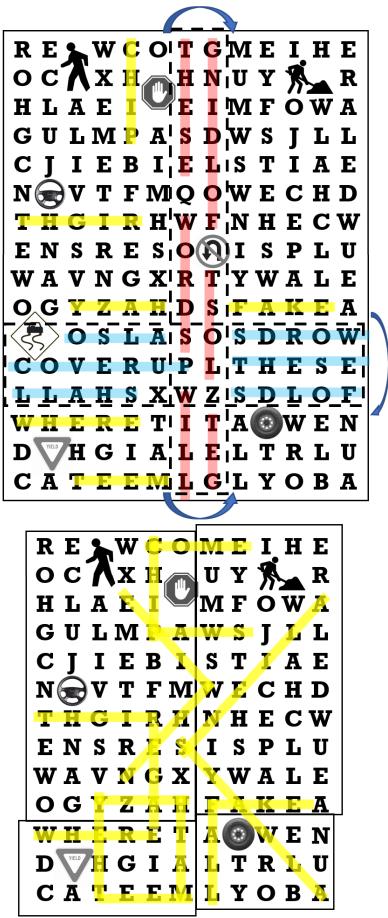


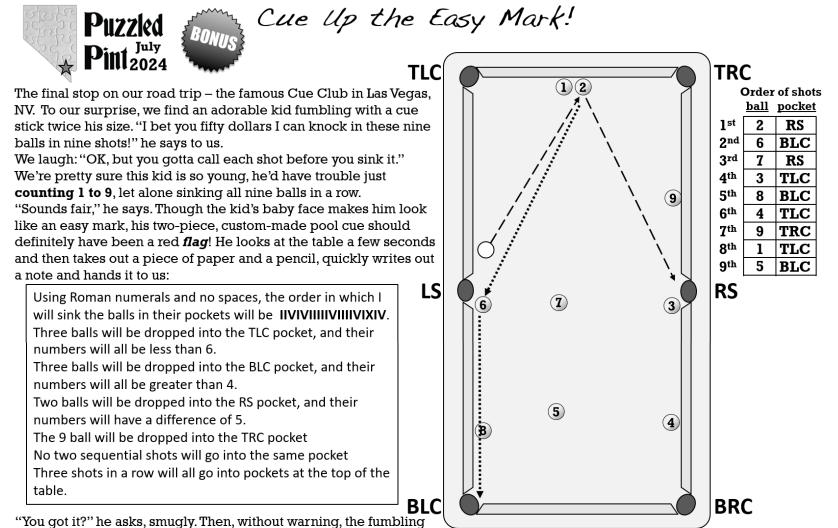
and two creases that way. We finally figure it out and leave town heading west to east, but, because it's London, we stop by a souvenir shop to buy a pretty pitiful Big Ben replica – caption: "Time to Visit London, "# AK!" We had hoped this route would be a nice little shortcut instead of a huge \_\_\_\_\_!

First, the words missing from the word search list can be taken from the 4-, 5- and 6-letter words in the puzzle set answers – shown above. Many of these words from the list can be found – shown in yellow in the top image at right. In addition a vertical band of words (highlighted in red) can be found that together are "THESE WORDS WILL GET LOST FOLDING." Likewise, a horizontal band of words (highlighted in blue) can be found that together (back and forth) make the statement "FOLDS SHALL COVER UP THESE WORDS ALSO." If creases are made to hide these bands of words, then it will allow the remaining words in the lists to be found. The completed word search for the sixteen listed words appears in yellow at right.

Using the hint *"pretty pitiful big ben"* to hint for pigpen code. The pigpen characters created by the found word clusters spell out from left to right (west to east) by the start of the character. The solution is:







baby-face child morphs into a smooth-movin' baby-shark. He is amazing, sinking shot after shot – sometimes with balls jumping over other balls - and he always manages to stop the cue ball right where it contacts the ball he is sinking. Nine shots later, we're reaching for our wallets.

We definitely "got it!"

First, solve the logic puzzle that the little hustler came up with. It gives the order of shot and which pocket each ball lands in shown in the chart above right. Red **flag** hints that semaphore is involved. The path the cue ball takes to the numbered ball together with the path the numbered ball takes to the pocket makes for (hopefully) recognizable semaphore symbols. For example, the first shot to sink the 2-ball is shown in dash lines above: And that comes pretty close to a semaphore N. The next shot to sink the 6-ball: which comes fairly close to a semaphore E. When these nine semaphore

letters are read in the order of the pool ball numbers (counting 1-9), it spells out the solution: SNOOKERED