

Final Engagement Challenge (solution)

by Ong Kah Kien

After a team unlocks this meta, an image of a set of mahjong tiles appears alongside the title of each of the Engagement Challenge round puzzles the they had solved, and similarly for any others they subsequently solve as well. The table below summarizes the given sets of mahjong tiles mapped to each puzzle title:

Puzzle title	Given matching encrypted Mahjong tiles													
Building														
Baking														
Cleaning														
Cooking														
Organizing														
Gossiping														
Performing														
Decorating														
Marketing														
Overseeing														
Gardening														
Dressing														
Sewing														

Each set of tiles represents an encryption of the puzzle title, but with the mahjong tiles reordered by suits and type. Unlike most conventional mahjong tile orderings, the honor tiles here are ordered last. This visually emphasizes that all the sets have some common red and white dragon tiles (mapping to the common ending -ING in all the puzzle titles), which is a hint that the tiles are encrypted versions of the puzzle titles. The table below summarizes the cipher for encrypting the letters to mahjong tiles:

A	B				C	D	E	F	G				I	K	L	M
發	中	中	東	南	中	中	發	北	中	中	中	中	中	北	南	萬
N	O	P	R	S	T	U	V	W	Z							
中	中	東	南	中	中	發	發	南	南	九	萬					

Hence the first step is to solve the cipher using information from the given sets of the tiles mapped to their corresponding plaintext puzzle titles. To avoid the cipher being solvable by an automated decryptor, certain letters map to two of the same honors tile, or to a sequence of three consecutive numbered tiles in the bamboo suit.

Using the solved cipher (or even a partial cipher), the puzzle answers can be similarly encrypted into mahjong tiles. As hinted in the flavor text, they all form 胡牌 or winning hands in mahjong. The complete cipher is not necessarily required, as it suffices to infer and identify what the winning hand mapping to that puzzle answer is. The use of the term 胡牌 in the flavor text is a hint that the more commonly used Chinese names of these winning hands should be used. Each of these names contain one (and two in two of the cases) Chinese numeral, and can be used as an index into the puzzle answer to extract a letter. For the two cases with two numerals (混幺九, which has one and nine, and 十三幺, which has thirteen and one), using either numeral as the index will yield the same letter. This avoids any ambiguity for these cases, and also serves as a confirmation of the extraction approach. The table below summarizes the encrypted mahjong tiles and hand for each puzzle answer, and their common Chinese names, and the extracted letters:

Puzzle answers	Translated to Mahjong tiles using cipher	Combi	Letter Extract
ABBA BALL		绿一色	A
PASS EVEN PIES		混幺九	P
GRIEVANCE		大三元	I
BELL PEPPER		九连宝灯	E
CUSTOMIZED PACK		十三幺	C
LAME MALE TATTLETALE		十八罗汉	E
OUT OF UK TOUR		小四喜	O
TWO-FOOT TUSKS		大四喜	F
STALEMATE LOOMS		七对子	A
REBELLER		清一色	R
ASIAN GRASS		小三元	I
NOT TOO EERIE		混一色	N
GOT CUT IN TWO		字一色	G

The extracted letters, in given puzzle order, form the answer for this meta **A PIECE OF A RING**. After winning Eleanor in the final mahjong challenge, Rachel received the family heirloom ring as promised. But Rachel returned its emerald stone to Eleanor as a peace offering, which helped to show her sincerity and finally gained Eleanor's acceptance and blessings to be with Nick.

Constructor's notes:

The very thematic meta answer phrase pun came from Celestine. There were some potential variants like A PIECE OF HER RING, but the chosen answer was of the suitable length that was also probably harder to figure out quickly from fewer letters. However, having 8 feeder answers that unlock the meta are expected to suffice, since the extraction based on the identified winning hands is clear and should yield most of the answer phrase letters already. The mahjong theme was selected as it was an iconic moment of the source material, which fit the hunt ending and also had meta/puzzle potential. Unlike past hunt puzzles featuring mahjong which relied on a winning tile extraction, I wanted to use more unexplored elements of mahjong given our relative greater familiarity with the game. I also thought it was important to use images of the tiles to justify the theme, and a cipher achieved that. But this meta puzzle is the second that I wrote based on this theme. The first meta using the mahjong theme focused more on individual tiles. After internal test-solving, I still had some doubts and felt it was not good enough as the meta, which is the key puzzle in the hunt. So I threw out that puzzle and came up with a new idea around the mahjong theme to rewrite a new meta. This worked better overall, and the first step was refined after test-solving to be more direct without being too inelegant. Unfortunately, rewriting the meta did set our puzzle construction timeline back by around two months. But discarding a written puzzle or redoing one is not uncommon in puzzle writing. I felt it was worthwhile and necessary, as more often than not, we tend to cling on to an existing idea or puzzle due to the time or effort invested or needed, and are reluctant to rework or redo parts of it that don't work so well (especially an entire puzzle).