Cat and Mouse Game - A Definitive Doc

Introduction - Mice and Rules

The cat and mouse game is a large hide and seek type game, and one of the most complex arcs of 18LoH. This arc starts when Shu Renjun suggests the most intelligent of each team to battle separately from the other teammates. But the different doors they open just lead them to different roles in the same game and not separate games for separate showdowns, like Shu Renjun expected.

The first group assumes the role of Mice. The group consists of

1. Shu Renjun
2. Chen Ran
3. Lin Xuan
4. Gao Lan
5. Cui Yu / Big Gold Tooth
6. Short and Stout

The Mice upon entering happen upon the following rules

1. You are the mice. You may hide in any room in this building.
2. Ten minutes later, the cats will appear here to capture you.
3. No scene in this building can be overwritten.
4. If a cat is repelled by a mouse's Liar Killer protection, it is considered a capture. If the mouse has no Liar Killer protection, the cat captures the mouse upon physical contact.
5. Mice can transform into any object, including people.
6. If a cat catches a mouse, the cat clears the Secret Chamber. If a mouse is caught, they will be in a ghost state for ten minutes, during which they can continue to hide, but they cannot hide on the First Floor. If caught again, they cannot hide on the Second Floor, and so on. Those not caught by a cat within two hours are considered to have cleared the Secret Chamber.
7. Unlimited attempts. When only mice or only cats remain in this Secret Chamber, the remaining cats or mice will be trapped here forever, unable to clear it and unable to continue the instance.

Introduction - Cats and Rules

The Cats consist of the following people

1. Qiu Yinong
2. Fitness Blogger
3. Lin Xuan's 3 Star Teammate - 1 : Zhou Zhan
4. Lin Xuan's 3 Star Teammate - 2
5. Lin Xuan's 4 Star Teammate - 1 : Pan-faced Woman
6. Lin Xuan's 4 Star Teammate - 2 : Qiu Hua
7. Ye Qian [Short and Stout's Teammate]
8. Han Bing [Short and Stout's Teammate]
9. Gao Lan's Three Star Teammate - 1
10. Gao Lan's Three Star Teammate - 2
11. Gao Lan's Three Star Teammate - 3 : Xu Jingzhou
12. Gao Lan's Three Star Teammate - 4 : Guan Xiong

[Note : Guan Xiong's presence is unexplained, and I don't know if it is a translation error or a plot hole by the author. He keeps mentioning 11 people but this guy appears out of nowhere. Maybe I might be wrong instead, so if you find the error do send a msg

But for now, for all the further feats, do not consider Guan Xiong's existence. Just consider that there are 11 cats and 6 mice]

The Rules displayed for the cats were as follows

1. This Secret Chamber cannot be overwritten.
2. You are the cats, responsible for catching the six mice hidden throughout the building.
3. Since the mice are very cunning and adept at escaping, you can say【You are a mouse】to immobilize them. Note: "Mouse" here is just a code name; if you say it to a mouse, it will not violate a Lie.
4. If a cat touches a mouse, or is repelled by the mouse's Liar Killer, it is considered catching the mouse, which means clearing the Secret Chamber and returning to the Secret Chamber with the twelve doors.
5. Cats have an immortal body and cannot be killed, except by the trial erasure mechanism.
6. Captured mice enter a ghost state for ten minutes. If caught for the first time, they cannot hide on the first floor; if caught for the second time, they cannot hide on the Second Floor, and so on. If they are not caught within two hours, the mice clear the dungeon.

7. When only mice or only cats remain in the building, the remaining mice or cats will be trapped here forever and cannot escape.
8. Mice have shapeshifting abilities and can transform into cats, known as fake cats. They can capture mice but do not have an immortal body. If caught by a real cat, they will reveal their true form and enter a ghost state. Time spent in the fake cat state does not count towards the mice's hiding time.
9. If a fake cat captures a mouse, there is a verification process with a three-minute time limit. If the fake cat cannot be verified as a mouse during this period, the fake cat clears the dungeon.

Chronological Order of Events - Part 1

1. The Mice arrive in the secret chamber, at lets say time 00:00. They read the rules, LX makes a scheme with Gao Lan and Chen Ran, then they are hidden for 10 mins
2. Lin Xuan moves Chen Ran to Normal Space - 2 and Gao Lan to Fast Space - 2[where he directly arrives at Floor 18's last room]. Gao Lan from Fast Space - 2 and Chen Ran from Normal Space - 2 replace their counterparts
3. The cats arrive at 00:10 and read the rules
4. Qiu Yinong deduces the mice are hidden and tries touching but Shu Renjun uses Whisperer : Forbidden Bookstore, darkening the room and letting all mice escape
5. Qiu Yinong deduces Lin Xuan being hidden among the cats, but guesses wrong, resulting in Pan faced woman clearing the game and Lin Xuan ascending to Floor 1.
6. Qiu Hua proposes his Mice Extermination Strategy, urging players to verify his premise by going to First Floor
7. All the cats arrive at Floor 1 at 00:30, spotting all the mice except Lin Xuan being present. All Cats utter 2 Future Lies, which the mice also hear
8. Zhou Zhan is keeping guard at Floor 1, while remaining 9 Cats ascend the next floors
9. Qiu Hua blocks the elevator at Floor 2 and induces Fitness Blogger to use his skill
10. Weird Speaker : Rampage is used by Fitness Blogger at Floor 3. The Building is darkened
11. Qiu Yinong is transported to the Fast Space 1 of Lin Xuan's skill after she silently exits the group of cats, where she directly arrives at Floor 12. The counterpart from Fast Space 1 is transported to the current Normal Space, where she still silently runs upstairs
12. Lin Xuan from Floor 3 replaces Qiu Yinong in the Cats team
13. Meanwhile in Fast Space - 2, Gao Lan is touched by Qiu Yinong of Fast Space - 2, becoming a ghost and becoming Mice back

14. Meanwhile in Fast Space - 1, Qiu Yinong from original space touches Gao Lan of Fast Space - 1 [after seeing the elevator at Floor 12 climb to 18], causing all Qiu Yinongs of all spaces to clear the game
15. Chen Ran uses Eternal Kingdom from Normal Space - 2, breaking all skills and skill-created items
16. Gao Lan, already in Mice form, returns to Normal Space back to Floor 1. Chen Ran does too, back to Floor 1.
    [Note: Gao Lan can return to Floor 1 cuz he is only blocked from going to the Ground Floor. While Lin Xuan was already blocked from going to Ground Floor after getting caught]
17. All No-Distance users attack Zhou Zhan, as he has lost his glasses. Gao Lan runs away to Floor 2.
18. Meanwhile Cats at Floor 3 are busy picking up dropped items due to Eternal Kingdom's effect
19. Gao Lan un-jams the Elevator at Floor 2, Rises to Floor 18, then comes down back to Floor 8 and sends the elevator back to Floor 2
20. Qiu Hua hides the elevator display with his back, thus hiding Gao Lan's movements
21. Gao Lan hides in the last room of Floor 8
22. Lin Xuan, as Qiu Yinong, reaches Floor 8's last room first, where Gao Lan disguises as Qiu Yinong and Lin Xuan acts as himself.
23. Fitness Blogger touches Lin Xuan, thus clearing the game. Lin Xuan descends to Floor 2 and starts scrambling the items, while Gao Lan continues as Qiu Yinong to search
24. Search of Floor 18 finished, Lin Xuan's Three Star Teammate - 2 used elevator to reach Floor 1 and replace Zhou Zhan
25. Lin Xuan's Three Star Teammate - 2 is deceived into lying, and thus hides in a room with Zhou Zhan, while Chen Ran disguises himself as Lin Xuan's Three Star Teammate - 2. Short and Stout disguises as Chen Ran and hides under the stairway
26. The cats reach Floor 2 and start the search again
27. Gao Lan, disguised as Qiu Yinong, finds Lin Xuan again in Floor 8. They both exchange places, thus Lin Xuan acts as Qiu Yinong while Gao Lan acts as the mice hypothetically touched by Zhou Zhan
28. Gao Lan's Three Star Teammate - 1 touches Gao Lan and clears the game. Gao Lan proceeds silently to Floor 18 [Note : Gao Lan is prohibited from going to Floor 1 now]
29. After conversation at Floor 8, Cats search till Floor 18, where Lin Xuan and Gao Lan exchange the disguise, so Gao Lan acts as Qiu Yinong while Lin Xuan acts as a frustrated rat

30. Gao Lan's Three Star Teammate - 2 touches Lin Xuan and clears stage. [Note : Lin Xuan is prohibited from going to Floor 2]. Xu Jingzhou is sent to Floor 1 to monitor the Rats while Lin Xuan's Three Star Teammate - 2 hypothetically clears
31. The Cats start their search again at Floor 2, while Xu Jingzhou reaches Floor 1
32. Xu Jinzhou is tricked into a lie by a disguised Chen Ran. The cats complete their search of Floor 5 and proceed to Floor 6
33. Both Zhou Zhan and Lin Xuan's Three Star Teammate - 2 run upwards, while Shu Renjun kills Xu Jingzhou
34. While the cats are distracted by gunshot, Lin Xuan disguises himself as Qiu Yinong while Gao Lan disguises as an object
35. Lin Xuan as Qiu Yinong induces the cats to leave Han Bing to guard Floor 6. Gao Lan is hidden as an object on Floor 6
36. After the cats reach Floor 8, Gao Lan kills Han Bing and runs downwards to the floors below
37. Gao Lan, while running downwards, collides with Zhou Zhan running upward. He makes Zhou Zhan clear instantaneously and gets into ghost form [Gao Lan is forbidden from accessing Floor 2 now]
38. Lin Xuan's Three Star Teammate - 2 reasons out the plans of the mice and touches Shu Renjun, clearing the game and making Shu Renjun a ghost for 10 mins [Shu Renjun is forbidden from accessing Ground Floor now]
39. Both Ye Qian and Guan Xiong try touching Lin Xuan. Guan Xiong touches and clears the game.
40. Thus as the scheme falls apart, all the cats and rats get shuffled among the building, changing their appearance to mimic the cats

Thus part 1 of Cat and Mouse ends and Part 2 of this game starts, with all players trying to trap Shu Renjun

The Layers of Cat and Mouse Scheme

The entire game had 6 to 7 layers of scheming (Yes, a 67 joke, just like my last doc). I will list the layers in brief here, then go over the strategies of each player involved in the scheme

Layer 1 : All Mice except Lin Xuan waiting in 1st Layer to let QY clear the game and ensure the other mice don't try becoming Fake Cats.

Layer 2 : Qiu Hua's overt efficient Mouse Search strategy, part of his Dance of Demons Strategy, to efficiently help the cats win

Layer 3 : Lin Xuan using his scheme to let Qiu Yinong escape and become Qiu Yinong + Lin Xuan disturbing the rooms

Layer 4 : Gao Lan intercepting and thus Lin Xuan having to use Gao Lan for deception

Layer 5 : Mice patching for Gao Lan's mistakes by deceiving the cats coming below

Layer 6 : Qiu Hua actively participating in these layers and helping the other layers to function

The Dance of Demons Strategy - Qiu Hua

Situation

Qiu Hua arrives with the cats at the 10 min mark. He notices the maneuvers of Lin Xuan, the mice and Qiu Yinong. Thus he grasps upon the most important element of this web of schemes - Qiu Yinong

Strategic Premises

He knows Qiu Yinong has the Wheel of Time ability, and as a cat it will be impossible for cats to lose because she can constantly rewind time and never let the mice reach their 120 min countdown for clearance.

Thus, the aim of the mice will be to let Qiu Yinong clear the game as fast as possible. And Qiu Yinong will comply with the mice, as her teammate Chen Ran is also a mouse.

Thus he deduces Layer 1 of the mice's plan. Waiting at the first floor in visible places to let Qiu Yinong escape first without letting other cats escape. They also need to wait at Floor 1 to make sure the cat and mice aren't deceived by any Fake Cats, after Lin Xuan has already been exposed.

Thus
Premise 1 : All Mice want to make Qiu Yinong clear as fast as possible
Premise 2 : All the Mice except Lin Xuan should be at Floor 1

Now with this premise in mind, he devices the most efficient strategy to let the cats win.

He also knows Lin Xuan's Space skills and Chen Ran's Eternal Kingdom partially. He also knows Lin Xuan would also deduce the overt scheme, so he is able to deduce Lin Xuan's scheme, which are the 3rd and 5th layers of the Cat and Mouse scheme.

Thus Premise 3 : Lin Xuan disturbing arrangements [will be explained in Lin Xuan's section]. This Premise exists because Lin Xuan knows the overt scheme of Qiu Hua

Objectives

Overt Objective : Make all the cats win as fast as possible

Hidden Objectives : Qiu Hua's actual aim isn't just to let the cats win. He wants to

1. Eliminate the low intelligence cats that might interfere in subsequent chambers
2. Eliminate Shu Renjun
3. Eliminate other intelligent mice too

To achieve these hidden objectives he actively helps the other mice to complete their layers of planning

Initial Strategy - Overt Objective [The Second Layer of Cat and Mouse]

1. Establish a set of Future Lies for the cats to cooperate on.

2. Keep a cat monitoring the Mice on the first floor. If the mice try to move, the cat can just announce "You are a mouse" to freeze the player as per rules. Also jam the elevator in Floor 2, to make it even more difficult for the mice to escape supervision

3. The other players will search through Floors 2 to 18, memorising every object in every room, but this round of seeing and memorising should be superficial

   By the time this strategy will start, 10 mins would have already passed. Thus all the remaining 5 mice have to be touched in these 110 mins to prevent them from clearing. This is just an approx calculation, and Qiu Hua knows Mice appeared x minutes before cats, thus the time they may have is less.

110 / 5 = 22 mins. And these 22 mins can be used to study those 17 floors
Thus 22 / 17 = 1.3 mins (approx). Removing 0.3 mins for climbing stairs, there is approx 1 min to search each floor. Everyone has to be together while searching through these floors.

Now the more efficient method would be to have each pair search a floor, one to guard the hallway while the other searches the rooms. But this can make it easy for the mice to act as fake cats. The Cats have to be near each other to deter mice infiltration.

4. After searching the 18 Floors, the search starts again at the 2nd Floor while one of the cats replaces the cat keeping watch of the Floor 1 mice. The replaced cat can then touch a mouse and clear the level.

5. The touched mouse will also be found upstairs, which can be touched by another cat to clear the level. The search will still continue to the 18 Floors and start again at Floor 2

6. Thus just after 3 rounds of searching the entire building, all cats will have enough memory to find any transformed mice. The constant clearance by the safe guarding cats and touching the mice that have to travel above due to the mice being prohibited in lower floors would enable all the cats to clear easily after just 3 rounds / 66 mins of the game.

Now this strategy is highly efficient in cornering the mice, requiring from 66 to near 90 mins for all cats to clear, given that no external interference happens. It will disable the ability of mice to disguise as Fake Cats, or even hide in any floor other than Floor 1, making their movements predictable.

Now Qiu Hua knows if he can strategise this, the mice will also deduce the same strategy.

So Qiu Hua tries foreseeing the schemes of other mice and cats, thus starts including some exploitable loopholes and hints in his strategy, to achieve the hidden Objectives

Manipulating with Initial Strategy [The Sixth Layer of Cat and Mouse]

1. Make others think of the within which one search is to be completed as 24 mins. Amidst a high stakes situation, make everyone wrongly calculate that the remaining 5 cats have 120 mins remaining when it's less than 110 mins.

Thus he says

"In this way, our search speed will be very fast. We just need to complete the search of the entire building within 24 minutes."

When the Fitness Blogger asks why 24 mins, he doesn't tell the reason. This is to make dumb 3 stars into violating the Future lie accidentally. This can be observed in how he frames the Future Lies to be said.

2. He clues Qiu Yinong to the second loophole. He mentions

   "Whoever opens the last room on the Eighteenth Layer first goes down to the First Floor."

   But while framing the future lie, he conveniently leaves that part out. This is to clue in to Qiu Yinong that her escape should happen in the last room of Eighteenth Floor. This is just one of several clues he specifically leaves for Qiu Yinong for her to clear first.

   This is also make it easier for Lin Xuan and Gao Lan to disguise as Qiu Yinong, according to their 3rd and 4th layer of their plans [His dialogues are audible at the First Floor]

   It should be noted that Qiu Hua knows Lin Xuan's skills, so he has already predicted that Lin Xuan will space transfer Qiu Yinong to let her clear. He also deduces that Chen Ran will use his Eternal Kingdom to block Fitness Blogger's Rampage skill.

3. Another key move he makes for Qiu Yinong to deduce the escape plan is to word his plans in such a way that Qiu Yinong will deduce the hidden variables. This also serves another function, to put psychological pressure on Fitness Blogger

   "We don't need to search too carefully, just remember the scene."

   If further deductions were made on Qiu Hua's plan, it would inevitably lead to one of the two results

   One: When the cats are searching, if they do not search carefully, and if they cannot catch any mice.

Two: When the cats are searching, if they can catch all the mice on the floors above the Second Floor.

The first result: If they cannot catch any mice, then only the cats guarding the First Floor will clear the secret chamber in advance, which means five cats will clear the secret chamber early. [1 cat already cleared before the entire thing starts]

And the final result will be that upstairs, from the Second to the Eighteenth Floor, a total of six mice and five cats searching for mice will be hidden.

The second result: That is, in every round of searching, if all the mice upstairs are caught, then the outcome will be: the entire building only needs to be searched three times, and the mice will inevitably lose.

Now the first result means the first five cats clearing the game are 3 stars, to prevent them from interfering in the late game showdown between highly intelligent 4 and 5 star players.

Do note that Qiu Hua doesn't know Chen Ran can also dispel skills and skill-created items, thus he thinks leaving weaker 3 star players to guard the mice and exit the game early is safe, because they have sunglasses to protect them against No Distance in the early game .

Thus 5 3-stars would leave the game early, but there are 7 3-star players in total, and since the cats will protect Qiu Yinong, the Fitness Blogger will alone remain as a discarded piece of Shu Renjun. The Fitness Blogger knew he was a discarded piece since before entering the instance and he also performs poorly in intelligence as compared to Qiu Hua, which Qiu Hua also indirectly points out to Fitness Blogger.

Thus the first variable will drive Fitness Blogger into a corner, making him want to clear the game the fastest. But Qiu Hua and others will block Fitness Blogger from touching Lin Xuan, which will compel him to use his skill to try escape.

Under skill usage the environment becomes pitch black, and this dark cover would help Lin Xuan replace Qiu Yinong.

4. The first Future Lie: The cats remaining on the First Floor cannot touch the controlled mice in advance; they must only touch the mice when another cat takes over for them, or when 24 minutes have passed.

The second Future Lie: The players remaining on the First Floor cannot touch the mice midway while going downstairs

As explained above, even though Qiu Hua said in plan that the one searching the last room must go down, the future lies don't include that.

And through the First Future Lie, even if the cats are killed/ deceived and blackmailed by Mice in Floor 1, the other cats can't go to support to not violate the Future Lie. Thus this Future Lie creates an Information Asymmetry for the better execution of Layer 5 of Cat and Mouse Scheme

5. Through the wording and the second result discussed above, he manipulates the remaining cats into thinking that Qiu Yinong is actually not important, since her wheel of time can be blocked from usage by Eternal Kingdom anyways.

   Thus the other cats are manipulated by Qiu Hua into thinking that Qiu Yinong is bait for the mice. This makes them not pay attention to Qiu Yinong, thus making the identity swap deception of Lin Xuan and Gao Lan easy to execute.

6. Qiu Hua also hides the elevator display conveniently when the others are searching the floor. Thus he also covers up Gao Lan for the Layer 4 of Cat and Mouse Scheme.

Through this plan Qiu Hua is able to control the movements and actions of both the Cats and Mice, until Gao Lan, under Evening Breeze's instruction, breaks the scheme. Thus he implements a Dance of Demons, where the strong prey upon the weak and each other while Qiu Hua stays ahead of all.