

On The Road to Find Out

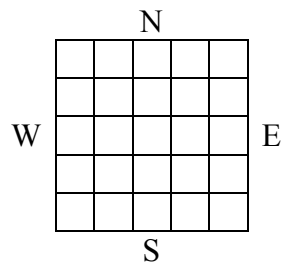
Original note to Berkeley Student Run of Hunt: The following puzzle is a type you may not have seen before. The point is to follow the directions and arrive at the answer. A few words of advice before starting: 1) while you can do this with one person, it's often more fun to divvy the roles up between people and 2) you probably want to save your progress periodically in case something breaks (that way, you won't have to start over). This puzzle was inspired by one by Dan Katz from 2005.

New note to Berkeley Public Run of Hunt: The following is a type of puzzle many of you have seen before and some of you hate. It's a Duck Konundrum (or whatever the generic term for that is). If you hate these, that's too bad for you. Find someone else to do it then, and they can have all the fun. The Berkeley kids liked it a lot. So there. This puzzle was lovingly ripped off of one by Dan Katz from 2005.

International thief and general miscreant, Fox, has just completed the greatest heist of his life, stealing the Gem of Arbitrary Power, which gives the user arbitrarily large, though strictly finite, power. Hot on his (literal) tail are a team of highly trained agents: team leader Eagle, senior agent Vulture, and new recruit Hummingbird. What country would spend the resources on training a team of bird secret agents, you may ask? That information is, of course, classified. This trio has been tasked to catch Fox and bring him to justice.

Fox, Eagle, Vulture, and Hummingbird have various items in their packs to help them in their respective quests. You might argue that a hummingbird couldn't possibly carry a large and full pack because it would be too heavy. To this I say, you clearly have not spent enough time in the gym, and you are encouraged to seek one out at the completion of this puzzle hunt.

The birds' agency has managed to trap Fox during his escape on an open field with infinite potential barrier walls. The bird agents have been dropped inside to apprehend him and recover the Gem. For ease of capturing Fox, the field has been divided up into a 5 x 5 grid as shown below.



“Adjacent” below means both orthogonally and diagonally adjacent unless otherwise specified. Distances between squares are measured by the minimum number of adjacent squares between start and finish. “Rows” run west to east, “columns” run north to south, “on the ground” means in the square the character is currently standing. Fox starts in the middle square and the three bird agents start in the SW corner. The birds' training and Fox's M.O. are below. At the start of each turn, exactly one of the trigger conditions should be satisfied. The effect is then carried out. Only on the completion of the character's turn should another trigger condition be checked for; do not interrupt a character's turn, your teammate will get very sore with you.

Instructions for Eagle:

(in her pack: gun, net, three walkie talkies, two passports)

Trigger: A multidimensional portal has opened up.

Effect: That sly fox has evaded me again. Damn, he is a slippery fellow. With somewhat more recklessness than is appropriate for an agent of your rank, you decide to follow him into the mysterious portal that could lead anywhere, but not before marking a “P” next to the portal opening. Whoosh! You appear gun at the ready on the NE corner of the field. Fox is nowhere nearby. Drat!

Trigger: Fox walks into a square which borders you and another agent.

Effect: Ha, he walked right into your trap, now you’ll have him. You wonder for a second why it was so easy to get him to fall into your trap, and are impressed that Hummingbird was the brains behind this trap. Perhaps you misjudged him. Where is Vulture? She would be impressed by the kid’s plan. Anyway, time to get this over with, you get out your net, and throw it toward Fox.

Trigger: Fox went much higher in the air than is typical of foxes.

Effect: He is escaping again! After him! You move to head him off by going one square to the northwest, then, you wisely think that you might need backup if Fox has started using the Gem. You radio to Vulture’s walkie talkie for help; the old tactician will know what to do. Write an “R” on the ground while you wait for her response.

Trigger: Hummingbird (and only him) is in the same square as you

Effect: “What is he doing here?” you wonder. You gave him express orders to go... why is he following you? Looking off one square to the west, you see Vulture, who has also disobeyed orders. You can’t deal with the rookie right now and Vulture has more experience chasing down Fox than any other agent alive. You are on a mission. You are going to focus on accomplishing your goals. Fox’s diversion is starting to dissipate so you decide to go over and investigate that square. You indicate that it may be further contaminated by writing a “Q” on the ground.

Trigger: You are on the same square as both of your fellow birds.

Effect: You take control of this situation like the leader you are. Tell Hummingbird to go north and Vulture to go east (not that they ever listen to you). You move one square in the direction of Fox. Get out your gun and aim it at Fox. You’ve always been one for the direct approach.

Trigger: You see Vulture is in the same column as you are.

Effect: Alright, enough trying to be the hero. This is a team and we should start acting like one. You fly to where Vulture is and write the number of squares you needed to travel to get there on the ground. You hand her one of your walkie talkies so you can stay in contact, you spend more time than you planned trying to explain to her how to use it, and then you fly to Hummingbird’s square and give him a walkie talkie. You make sure to set his microphone volume on low though, he’s really starting to get on your nerves.

Trigger: Your walkie talkies are being abused.

Effect: You fear your team has been set back to square one, so you write a “1” on the ground. An obstacle lies in your path to go north, so you go one square west and write the first letter of the name of said obstacle on the ground. Then you fly north, toward your team, maybe you can calm them down and bring them together like the born leader you are. Or at least you can take the walkie talkie away from Vulture. Continue north until you are in the same row as Vulture. Write a “Q” on the ground

Instructions for Hummingbird:

(in his pack: bottled nectar, Boggle set (in case he gets bored), warm socks, night vision goggles, pack of tissues, roll of quarters)

Trigger: A superior bird agent gives you an item.

Effect: *flit* *flit* Oh my, this is a special treasure. *flit* Now you won't have to chase the other agents all over the field for updates, and you can tell them all the things you see, all the time! *flit* You are so ecstatic that you forget about all of your search plans and fly due south two squares to calm down, you can't let the others see how excited you are. Write a "K", the most exciting letter, on the ground when you get there.

Trigger: A superior bird agent has taken something from your pack.

Effect: *flit* *flit* O my goodness, you're on a real mission! *flit*, you're another one of the birds. *flit* Helping out your fellow agents, chasing down the bad guy. Alright! Now where did Eagle tell you to go? You're not sure, so you do what you always do in this circumstance, you take a selfie. Well that helped right? Uh, why don't you just follow Eagle. Fly one square in the direction of Eagle. That's standard procedure, right? *flit* You don't really remember. *flit* Well, it can't hurt.

Trigger: Eagle comes in on the radio, asking for advice.

Effect: The boss wants advice! *fwub**fwub* From you! You wonder why you are having such a hard time flying. What can't you see well? Why is your heart rate so slow? Why do you just *fwub* when you try to *flit*. Whatever! The boss needs you! You start waddling west, since you know the boss is that way. You get one square before you have to stop and take a rest. Write an "S" on the ground and radio to the others that you are on your way.

Trigger: There is a bird agent one square to your southwest

Effect: *flit* *flit* You feel great! *flit* *flit* You can fly better and you don't feel like drinking prune juice anymore! *flit* *flit* *flit* *flit* Hooray! *flit* *flit* You actually helped disable Fox too, you think! *flit* *flit* This is so exciting!!!! *flit* *flit* *flit* You write an "L" on the ground and taunt the injured Fox that you are coming to get him.

Trigger: You are standing on a square with a perfect square written in it.

Effect: You want to show Eagle that you can be useful in the field by scouting ahead. *flit* You go in the direction of Eagle, passing her, and on until you cannot go any further along that trajectory. On the way, you noticed that an alphanumeric was on the ground that Eagle was standing on when you flew past. You decide that that must be what you are supposed to write down on the ground wherever you go so once you have gotten to the edge, you write the same alphanumeric on the ground of that square. You then promptly forget this alphanumeric... Oh well, you'll figure it out later. Unfortunately, you left your pack open and your roll of quarters falls to the ground exactly half way between your final location and Eagle's. So much for doing your laundry. *flit* flit*

Trigger: You can't see anything.

Effect: You pull out your night vision goggles. You knew they would come in handy even if this mission never was supposed to last 'til night. You see Fox about to take a swipe at Eagle, who is flying around blindly. You fly one square south and write a "T" on the ground. Then you fly into the darkness where Eagle is, and drag her away (to the north) from the snapping jaws of Fox just in time. You then charge Fox until he retreats into the nearest corner. You stand guard in the smoke-filled square not occupied by another animal. You whip out your radio and tell Vulture to get there immediately. This is so much fun! *flit* *flit*

Trigger: Your boss is swallowed up by the earth.

Effect: Freak out, your boss is gone and nowhere to be seen. *flit* You pull out your nectar and drink all of it in one slurp. Whoa, that nectar is strong stuff. The nectar clears your head a little and you decide to start looking for Fox by spiraling out from the center. You fly to the center of the field and put a big "X" on the ground. Throw your empty nectar bottle one square west, you don't need that stuff anymore...

Trigger: Your comrades have been thrown across the board.

Effect: No one messes with your team like that! You move one square diagonally toward Fox (who looks bigger than you remember). You pull out an old revolver from your pack that you don't remember packing... You take aim at your vulpine foe's front leg to disable him, steady, steady... Your shot ricochets off the ground and into Fox's paw from which flies a small, glowing, dark red gem to land... somewhere... you really are having trouble seeing. Fox appears to shrink and your vision gets very blurry as the world swims.

Instructions for Vulture:

(in her bag: prune juice, a reliable old revolver with one shot in it, throwing stars, blanket (it gets so cold sometimes))

Trigger: A flying, non-bird object comes into your square.

Effect: What is this now? Now everything can fly better than you, even empty drink containers. While you grumble to yourself about how flying used to be, you write an “F” on the ground. You came out of retirement just to catch Fox, he escaped you years ago and you’ve never lived it down. While the kid does his spiral out thing, you’ll start from the sides and work your way in. You move due east of where you are to the edge and prepare your search for the scoundrel.

Trigger: A mountain suddenly appears along the edge of a square you are in.

Effect: Geh, wah! “I tell you I don’t fly so good, I have a heart condition, I can’t take these kinds of surprises”, you exclaim. Why would there be a mountain here! You’ll have to tell the office to remove this mountain later. You write an “8” on the ground to remind yourself where you were when the mountain formed. You decide you want to be on the other side of this mountain, so you walk one square east, you write a “4” on the ground, and walk one square north.

Trigger: A smoke bomb goes off within two squares of you.

Effect: Eh, what’s this, you are an old bird, and all this smoke makes you cough, *cough* *cough*, why do young people always generate large amounts of smoke. Curse all young people, and if one is present in your square, take something from them to blow your beak with because all inconveniences you face are their fault. If no young’n is present, drink all of your prune juice to try and clear your throat. Forget the last order Eagle gave you, and go in the direction 90° counterclockwise from the heading Eagle last told you to go. Go only one space, the smoke is still bothering you. You wonder why you came out of retirement for this again.

Trigger: Hummingbird radios for your help

Effect: This is the moment. The last important thing you need to do. You reach out your wings to their full extent. They creak slightly under the effort, but in a few strokes, you are off the ground and flying. You move due east until you reach the edge of the field. Fox is cornered with nowhere to run. Eagle and Hummingbird nod at you and you clap Fox in handcuffs. “You have no proof I did anything wrong,” says Fox. “We got all the proof we need chasing you all around this field. You left a clear trail for anyone to follow,” you reply. “What do you mean?” demands Fox. You pull out an up-to-date map of the field, complete with ground writing, and shift all letters by the sum of any numbers adjacent to it and show it to Fox. He collapses, defeated, and dog, er, fox-tired. Your old partner is avenged, the world is safe. You wonder what happened to all of your prune juice.

Trigger: You can fly!

Effect: My word, what’s this. You are airborne, you are soaring! *flit* Well, fine you’re hovering a couple of feet off the ground but you are not touching it. And you can see so clearly. There is Fox, you reach for your trusty pistol, the one Fox used to kill your partner all those years ago, only to discover that you left it on your other body. With no tools to fight with (unless a Boggle set counts, you’ll have to have a talking to with Hummingbird when this is done), you fly straight toward Fox, by one square. You’ll just have to poke his eyes out with your tiny, thin beak.

Trigger: You can no longer fly again.

Effect: You realize you are back in your own body. The pistol has been shot and Fox is not dead. You silently curse Hummingbird then remember you can do so noisily. You pick up the walkie talkie and yell obscenities into it at Hummingbird for a solid minute. Happier, but parched, you drink your prune juice. Move one square west, which is in the general direction of Fox. Actually, that was a pretty impressive shot the kid took...

Trigger: You hear your own voice on the walkie talkie

Effect: Curse! Fox is still at large! In your rage, write the letter "R" on the ground. Well, that's fine. You devise a clever and creative ploy to lure Fox into a trap and explain it to Eagle via walkie talkie. You fly as far north as you can without hitting any barriers or edges. Write the number "6" on the ground. You know Fox will be near here soon. He likes to hide in corners.

Instructions for Fox:

(in his bag: Gem of Arbitrary Power, three smoke bombs, lock pick set, building plans for the secret hiding place of the Gem, balaclava)

Trigger: A hummingbird darts past you through an adjacent square.

Effect: The super power from the Gem fades, but you continue running north. You like to hide in corners. After you leave your starting square, start writing the alphabet on the ground, starting at G, one letter per square. You have an idea for dealing with both of these bird-brained agents for when you get there.

Trigger: A net is being thrown onto you

Effect: FOOLS! You bellow. They thought it would be so easy to take you in! The Gem in your palm starts to throb as you grow from a typical fox size to a building destroying elephant/mammoth sized fox. The Gem's power is coming off of you in waves, warping reality around you. Any bird agents in squares adjacent to you are blown backwards away from you all the way to the end of the field. All numbers and letters marked on squares you are in or are adjacent to you also feel the power to grow, and each one increments to the next letter in the alphabet or next integer. Hmm, the power of the Gem is starting to get out of hand... The net that was thrown lands on your side and slides off harmlessly.

Trigger: A revenge-filled bird is bearing down on you.

Effect: Ok, things have gone from bad to worse. Clearly, if wielding phenomenal power can get you into messes it should be able to get you out with no side effects. You flee a square north and encounter a barrier you put there yourself. Quickly, brown fox that you are, you have the dark Gem give you the power to lazily jump over it. On the other side, you write the only letter missing from that last sentence on the ground.

Trigger: An overexcited bird is within two squares of you

Effect: These agents are too good. Barely did you make an escape and they have already tracked you down again. This will not do, you need to slow them down somehow. You reach for the Gem and wish that the bird in your row wasn't such a young go-getter. You feel the power of the Gem reach out to the nearest bird to you, pluck its consciousness out like a feather, carry it to the furthest bird from you and shove it in. As the power of the Gem recedes, the displaced consciousness of the furthest bird is dropped unceremoniously into the vacant shell of the nearer bird. Well, that wasn't exactly what you had in mind.

Trigger: Eagle is in the same column as you

Effect: Looking around for an escape you wonder how you got trapped on a patch of land that is inescapable in most directions because of infinite potential barriers and totally devoid of cover. You pull out the Gem. Maybe if this land wasn't so flat and open, it would be easier to hide. Rubbing the gem with your paw, you wish that this terrain was more rugged. Suddenly, two large mountains erupt on the boundary between the squares two and three rows south of you in the first and 5th column. Write a "B" on the ground and pad one square east, maybe that'll distract them.

Trigger: Insult has been added to injury

Effect: OOWW! That paw hurts so much and now this hot-shot spy is taunting you. You are filled with rage and resolve to teach it a lesson before you go down. You charge eastward three spaces, write a number “3” on the ground and throw your last two smoke bombs at the two birds adjacent to you. You’ll try to take them both down with you.

Trigger: You see someone has a gun aimed at you

Effect: SHIT! The Fuzz! You throw a smoke bomb one square to your south and run all the way north in your column. On your way, write the number of items currently in your bag on the ground of any square you run through but don’t stop in. The cryptanalysts will spend days trying to riddle that out.

Trigger: You spot money falling from the sky

Effect: You didn’t become an internationally known thief for the chase scenes, you do it for the money. You head toward the coinage as fast as you can. After you get to it and pick up the money, you immediately realize you have fallen into a careful and craftily constructed trap. Faced with foes to your east and west, you pull out the Gem and wish that you were anywhere else. A portal appears beneath your feet and you fall in, appearing in the SW corner of the field. You write a “5” on the ground.