12. Forks

Objectives:

1. Understand and be able to explain what a fork is
2. Be able to find forks during games
3. Plan ahead to place the opponent in positions where forks may be played
PART 1: FINDING A SIMPLE FORK

Definition

Spotting a fork

Creating a fork

Ask, “What is the name for attacking two or more men with one of your own?” (Ans. “A fork.”)

In the position to the left, does anyone see a fork? (The knights are forked by the queen.)

Using a fork. Suppose Black didn’t care about the knights but wanted to capture the bishop. How would Black use a fork to capture the bishop? (1...Qh1+ forking the king and bishop will allow Black to win the bishop. If 2.Kf2 Qxh4. What have we created here? Another fork, this time between the king and the knight on h7. Suggestions like 1...g3 to win the bishop may be discussed as a discovered attack, but because White has a way to defend the bishop, 2.Bxg3 is the most obvious, such a move is not the most powerful.)

But in the position above it is White’s turn to move and White does not want to lose a knight or bishop for nothing. Would White be willing to trade a minor piece (a knight or bishop) for Black’s queen? (Ans. Yes!)

What will White do to avoid losing a piece for free? Suggestions from the students of moving a knight should be discussed but it should be noted that any place one knight moves, whether White is threatening the queen or not, Black will respond by either capturing the other knight or by forking the king and bishop to win the bishop.

1.Be7+ may be suggested. While that prevents a knight from being captured, Black likely will respond with 1...Qxe7 capturing the bishop for free. 1.Be1+, however, places Black’s king in check with the bishop protected by the king. Ask, “Why can’t Black capture a knight, now?” (Because Black has to get out of check and capturing a knight does not get Black out of check.)

Move the king to one of the four light squares and ask, “What is White’s best move now?” (If 1...Ka4 2.Nc3+ Teacher: What is that called? Student: A fork (or better, “A royal fork”). Move the king to another light square and ask a different student for the best move. 1...Kb5 2.Nc3+; 1...Kc4 2.Nd2+, 1...Kb3 2.Nd2.)
Finding forks

Then move to the other possible square, 1...Kc5 and ask another student for White’s best move. Any knight move results in the knight that does not move being captured. The only good move for White is 2.Bf2. Then, go around the class asking for the correct response for White to each of Black’s king moves to a light square. (2...Kb5 3.Nc3+, 2...Kd5 either 3.Nc3 or 3.Nf6, 2...Kc4 3.Nd2.)

Continue with this pattern with each move, asking different students with each position to provide the right answer either for a royal fork (forking the king and queen) or a check with the bishop.

Not all forks are worthwhile

Remind the students of the definition of a fork. Ask if there are any forks shown in the position to the left. (Ans. There are no good forks. Black’s queen is attacking three things—the pawn on a2, the knight on d5 and the rook on f1—but with all of those men having less value than the queen and all of them are protected. So although the queen is attacking three things we do not consider it to be a real fork. By a fork we mean that we are attacking two or more things that are unprotected or relatively unprotected.)

Using that restrictive definition of a fork, what forks can either side create this move? (Ans. Black has no good forks available as the only man White has that is unprotected in the pawn on b2. But there are three good forks for White. Ask different students to identify all three: 1.Nc7+, 1Nb6 and 1.Ne3.)

Finding the best plan

Which of those three is the most powerful? (Ans. Nc7+ wins Black’s rook on a8 for free and the knight will be able to escape without serious trouble.) The other moves either allow Black to capture the knight immediately after it captures the rook or at least trap the knight in the corner of the board.
Good fork vs. Bad fork

Now set up the position to the right. Ask who has more material? (Black is ahead by a pawn.) What does White have in exchange for that pawn? (A safe king and one more piece developed.)

It is White's turn to move. How can White make a fork? (White may play 1.Nxc7 but that is not a good fork. Why not? Because the knight on a6 will capture White's knight if it captures on c7.) Does this give us any good ideas of how to make a good fork?

Creating a combination

White removes the defender of c7 by playing 1.Bxa6. For the moment, White is ahead by a piece for the pawn that it had been behind. How can Black regain the material advantage? (Ans. By capturing the bishop on a6.) If 1...bxa6 what would be White's best response? (2.Nxc7, forking Black's king and rook.)

Suppose Black had captured 1...Qxa6. What is White's best move now? (2.Nxc7 is still the best move. In fact, it is even better now than in the position above, as more of Black's pieces are under attack. What is being threatened now? (Ans. The king, rook and now the queen.)

Family fork

We have a special term for a fork involving those three pieces. When the king, queen and rook are under attack we call it a family fork.

The fork in this position required more than one move. We first had to remove the defender before we could safely play Nxc7. When we make such a series of moves we call it a combination.
Review of forks
and family forks

Set up the position on the left and let the students know it is White’s turn to move.

Ask the students for the best move. Playing either rook to e1 forces the king to a safer place, so those are not good choices. Emphasize that placing the opponent’s king in check usually is not a good plan.

1.Nf6+ also makes black protect the king more.

Nc7+ attacks the king, queen and rook at the same time. What do we call that type of move? (Ans. A family fork.)

Any man may fork

Knight forks, using a knight to attack two or more pieces, are powerful, as the knight ordinarily is not a strong piece. If it can be traded for a queen or a rook, that usually is a very good thing to do.

What other piece can attack many things at once? The queen can. Both the knight and the queen may attack in eight different directions. However, a player ordinarily will not want to trade a queen for a different piece. In the position on the right, how many men is the White queen attacking?

The queen is attacking three pawns, but would it be a good idea for the queen to capture any of them? (No. Each of the pawns is protected.) What is protecting the pawn on h7? (The rook.) The pawn on f7? (The king.) The pawn on e5? (The knight.) If the queen captures a pawn right now, what will black do on its turn? (Capture the queen.) Is that a good trade? (No.)
Pawn fork

The position on the left was created by the following moves:

1. e4 e5
2. Nc3 Nf6
3. Bc4 Nxe4
4. Nxe4

Black is behind by a knight for a pawn, but it is Black’s turn. What is Black’s best move now?

Black may fork White’s two aggressive pieces by playing 4...d5. The exchange that follows will make the material even, but Black’s position is better than it was before the trade was made.

Review of opening principles

It would be reasonable to ask questions from the beginning of the game. Why did White make its first move? (To control the center, help develop a minor piece – the bishop – and help protect the king by getting one step closer to castling.)

The second move developed a piece, added more control to the center and also helped to protect the king. Adding more control to the center always makes the king safer, as good attacks nearly always come from or through the center.

The third move for White developed a piece, helped to clear the way for White to castle and controlled a center square.

Of course, Black had many options other than to capture the pawn on move three, and White was not forced to capture the knight on move four. What might have been some alternative moves for White? (Qh5, threatening checkmate by Qxf7# is one interesting move. It brings the queen out early, usually not a good idea, but it was also not usually a good idea for Black to move the same piece – the knight – twice in the opening.)

Combining to
create a fork

Set up the position to the right. Ask the students which side has the better position.

Evaluating which side is better

Things to consider are:

1) Material. (White is ahead by a pawn.)

2) Control of the center. (Both sides have done a pretty good job of keeping the other side out of the center but White has done a bit better.)

3) King safety. Both kings are castled but neither side is completely safe. Black's king looks somewhat better protected as it has pawns on the adjacent g- and h-files while White has a gaping hole in its defenses along the g-file and White's king cannot get off of the back rank.

The player with the move can establish an initiative

If it is Black's turn to move, Black can exploit White's weaknesses with 1...Rc1+. White cannot move the king to escape check and blocking (2.Qc1 leads to 2...Rxc1#.) The third method of escaping check, capturing, is the best, so 2.Qxc1 is essentially forced. How does Black proceed? 2...Ne2+ creates the royal fork and Black has traded a rook for a queen, a powerful advantage.

If it is White's turn to move, the advantage is not so clear. The discovered attacks on the queen do not lead to an advantage. If 1.Ng6+ Qxg6. If 1.Nxf8 Black has options of either capturing White's rook (1...Qxg7) or playing 1...Qg6+. Two of White's three moves are very bad. (2.Kh1 Qg2#; 2.Qg3 Ne2+ creating the royal fork and 2.Kf1 Qg2+ forking the king and rook.

This lesson, however, is about forks, not discovered attacks. The move White should play does not create a checkmate or even win a queen. White needs to have a more modest goal. White wins a minor piece with 1.Qxf4. This takes away Black's major threat.

But 1...Qxf4 means that Black is ahead by a queen for a knight. How does White use a fork to create an advantage? 2.Ng6+ creates another royal fork and now White is ahead by a knight and a pawn, not just a pawn as we had at the start of this position.
A similar example

In the position to the left, it is White’s turn to move. After seeing that the material is equal at the moment, how should White gain the upper hand?

1. Qxf6+ wins a piece. If Black retreats the king White is simply ahead by a knight. How does White follow up after 1...Kxf6? 2. Ne4+ creates a royal fork, and after Black moves the king to safety (2...Ke5, for example) 3. Nxc5 creates another fork, winning a pawn. White will need to promote a pawn to win the game and with the extra minor piece White will be able to capture some extra pawns making it easy to promote one and win.

It might be worth noting that Black would be well advised not to capture White’s queen on the first move. Black has better chances keeping the queens on the board.

Another example

There are innumerable examples of this maneuver. Several are presented here not because every student needs to be exposed to every example but because teachers may want to use the same concept with various groups that have overlapping students. In the position to the right, the teacher may want to discuss the potential fork Black would have were it Black’s turn (1...Nd4 forks White’s queen and rook) so as to demonstrate that the best way to parry an attack is with an attack that is even stronger.

If 1...Nd4 2. Ne7+ Kh8 (forced) 3. Nxg6+ fxg6 4. Qd3 Nx f2 5. Qxd2 and White has captured a queen and a knight while Black has captured a rook and a knight.

If it is White’s turn to move, what is the best plan? Is 1. Ne7+ a good
fork? (No, 1...Nxe7 is a simple defense that captures a piece for nothing.) If Black’s knight were not defending the e2 square, White’s threat of a fork would be very powerful. What is White’s best move?

1.Rxc6 threatens the queen directly with the rook. How can Black protect its queen?

Capturing the rook seems like the first idea to explore and there are two alternatives. What would White play after 1...bxc6? (2.Ne7+ forking the king and queen.) After 1...Qxc6? (2.Nxe7 again forking the king and queen.)

Black can block the rook’s attack on the queen with 1...f6. What does White play then? (2.Ne7+ with that same royal fork.)

Are there any safe squares to which Black’s queen may move? (No.) Having now explored all of the options, we conclude that 1.Rxc6 will allow White to win Black’s queen for a rook.

Defending against a fork

Attacks frequently do not work before a player has defended properly. In the position to the right, what is the threat? The only thing being attacked is the knight. It is White’s move. Is there a good threat for White?

Consider what happens with 1.Nf7. What does White have under attack? (Both rooks.) How is Black likely to respond? 1...Rc8 (either rook) attacks the knight, but the knight had not planned to remain on that square and will capture the rook that did not move. What would have been more effective? Moving either rook to e8 places White’s exposed king in check, giving Black the opportunity to move the other rook to attack the knight. Because the knight has no good squares to find sanctuary, Black will win the minor piece.
How to find a fork

Unprotected material is not always free

Finding a good fork

What is under attack in the position to the left? White has an unprotected e-pawn but if Black captures it with the knight, the position becomes quite complicated with White having threats on f7 (with the rook, bishop and soon the queen) after the moves: 1...Nx e4 2.Qd7. For example, 2...Rf8 3.Rxf7 Rxf7 4.Qxf7+ Kh8 5.Qf8+ Ng8 6.Qxg8#

Several of Black’s moves in the illustration above were not forced. After 1...Nx e4 2.Qd7 Rf8 3.Rxf7 Black could have played 3...Qb6+ 4.Kh1 Qxb3 5.Rxg7+ Kh8 6.Rxh7+ Kg8 7.Qg7#

That leads us to a better variation for Black. As shown above, Black starting by taking the apparently unprotected pawn on e4 leads to White winning. However, Black could achieve an advantage with a different move, suggested by a variation we just reviewed.

What does White have that is not protected? Three of White’s men are unprotected. They are the queen, the bishop and the pawn on e4. Everything else has something protecting it. We have seen that capturing the pawn on e4 was not a good idea. Does Black have a way to capture White’s queen? Black can attack the queen with its rook or queen by moving either to d8, but in neither case is there a forced combination to win the major piece.

Let’s look at that unprotected bishop. Is there a way for Black to attack the bishop at the same time as something else of importance is placed under attack? Now we can see the process for finding the fork. 1...Qb6+ places the king and bishop under attack at the same time. White must get the king out of check. With any of its moves (2.Kh1, 2.Rf2 or 2.Qf2) the bishop remains unprotected so Black can follow with 2...Qxb3 and has won a piece for free.
Another example of finding a fork

Set up the position to the left. Identify whatever chessmen are not protected. (Ans. White has a pawn on b3 that is not protected, Black’s rook on a5 and bishop on g4 are not protected.)

Let the students know that it is Black’s turn to move and ask for ideas for Black’s best plan.

Students often will suggest direct attacks on the king and each suggestion should be explored. For example, 1.Qe8+ Kg7 2.Qe5+ Kg8 can lead to a repetition of position and a draw.

White would like to do better. 1.Qb8+ Kg7 2.Re8 looks like it could develop into a promising attack. However, 2...Qc1+ forces 3.Bf1 3...Bh3 4.Rg8+ Kh6 (this is why Black played 2...Qc1+ instead of 2...Qb1+ or 2...Qd1+.) 5.Qf8 (note that every move White plays from now until the end of the game must be a check. Why is that? (Ans. As soon as Black gets an opportunity to make a move other than getting the king out of check, Black will play Qxf1#.)

5...Kh5 6.g4+ Kxg4 7.Qe8+ Kh4 8.Qd8+ (It is a fork, but one without value because if White captures the rook without giving check, White will be checkmated with Qxf1#.) 8...Kh5 and White has run out of good checks that do not involve the giving away of the queen.

From this variation, we see that attacking the king does not lead to victory. Usually, it takes an accumulation of smaller advantages to win a game of chess.

In this case, it is possible to win a piece. From the starting position, we saw that some of Black’s pieces are undefended. Where could White have a piece located that would be attacking two of them? Having the queen on c8 attacks the king and bishop. What is wrong with having a queen on that square? (The bishop will capture it.) Similarly, having the queen on a4 attacks both the rook and bishop. But a similar problem exists. What would make a good fork? Having the queen on b4 attacks both the bishop and the rook simultaneously. How does White get it there?
Knowing what you are trying to find makes it easier to find it. Once a player knows what to look for it becomes much easier to find it. Students should be taught that every move they should look to see what material is being left unprotected to help them find a tactic that will allow them to capture free material.

In this case, the correct combination is 1.Qb8+ forcing 1...Kg7 2.Qb4 forking the bishop and rook.

An easier example

It is White’s move in the position to the left. What has Black left unprotected? (Ans. The bishop on a5.) How should White win it? (Ans. 1.Qa4+ forking the king and bishop.)

Note that if Black tries to save the bishop with 1...Nc6 2.Nxc6 may win even more. For example, 2...bxc6 3.Qxc6. Now what is being forked? (Ans. The king and rook.)

Look for patterns in the opponent’s placement of pieces that would permit forks

Students always should look for opportunities for forks. In the diagram to the right, where are the pieces in a position to be forked? White’s king and rook on a1 could be forked by a bishop on c3. So how does White place a bishop on c3?

1...Rxc3! (1...Bxc3 wins a pawn but using the rook first with the threat of the fork wins much more material.) If White does not recapture Black is ahead by a bishop. If White plays 2.bxc3 Bxc3 wins the rook in addition to the pawn that was just captured.
Forks can happen even in positions that look like there is nothing happening.

How would we evaluate the position to the left? Ask students for the important considerations in evaluating a position.

**Material** is equal.

**Control the center.** Black has good control of the center but White has two of the squares controlled.

**Piece development.** Both sides are using all of their pieces.

**King safety.** Black’s king has castled behind a row of pawns but the h-pawn has moved, allowing White potentially to have a perch on g6. White has castled behind two pawns but cannot move the king.

Exposing the enemy king

It is Black’s move. What can Black do with that move? What initiative can Black create? 1...Bxg2+ forces 2.Kxg2. How would Black follow up? 2...Qd2+ forks the king and rook so Black will end up with a rook and a pawn in exchange for a bishop, an excellent trade. In addition, if White moves the king to the first rank to escape the queen’s attack (3.Kf1 or 3.Kh1) then 3...Qxc1+ is another fork, winning the bishop. Of course, if White plays either 3.Kg1 or 3.Qe2 then Black will have to be content with taking the rook and having a substantial, if not overwhelming, advantage.

Creating a fork

In the position to the left, it is White’s turn. The position on the board looks pretty equal. Both sides have kings in places where they are only somewhat protected. Black has an extra pawn but White has the small advantage of having a knight to work with its queen while Black has a bishop instead, and bishops do not work as well paired with queens.
Using the initiative

The largest advantage White has is the move. White can now create an attack. What would be the best plan?

White could immediately trade the knight for the bishop. (1.Nxe7+) Is that a good idea? What are the reasons that trading the knight for the bishop is not a good idea?

1. A knight complements a queen more than a bishop does.

2. Black is ahead in material, so trading minor pieces is to the advantage of Black.

3. White’s knight is better placed, closer to the center and to the opponent’s king than is Black’s bishop.

After rejecting 1.Nxe7+, we can look at the other checking move with the knight, 1.Nh6+. How would Black respond? Black has to get out of check, so Black will have to move the king. Black may not move 1...Kf7, and moving to the corner is contrary to the idea that in the endgame, the king should be centralized. 1...Kf8 or 1...Kg7 need to be analyzed. 1...Kf8 allows for an additional attack on the king with 2.Qa8+ whereas 1...Kg7 does not. White must figure that Black would play 1...Kg7 at which point White’s knight is under attack from the king and White has no way to keep its own attack going.

Looking for forks

White may look for a way to forkl Black’s two most important men, the king and queen. But the only square for the knight to attack them both (f6) is controlled by Black’s bishop. But, using that same line of thinking, White has another move that would attack both of Black’s royalty. What is that move? 1.Qd5+ attacks both Black’s king and queen. Black must get out of check. If Black moves the king or blocks with 1...Qe6 then White will capture Black’s queen for free.

What does White do if Black plays the more obvious 1...Qxd5? Right, 2.Nxe7+ forks the king and queen. After Black moves the king to a safe square, White plays 2.Nxd5 and now White has a large advantage, with a knight and two pawns facing three pawns. That should be enough of an advantage to win the game.
Combining ideas

Most chess positions do not lend themselves to locate simple forks. Forks must be created. In the position to the left, in which it is Black's turn to move, what pieces look like they might be forked?

We want to look to attack men that are unprotected or pieces that we can trade for men of lesser value. The first combination of men to look at are the queen and the king. Where could we potentially place a piece to attack them both simultaneously? (Ans. 1...Nf3) What is wrong with just playing the fork on the first move? (Ans. The rook will capture it.)

Overloading the opponent's men

Something else to notice in the position: The queen is guarding the g2 square. Why is that important? (1...Qxg2 would be mate except for the queen guarding the g2 square, ready to capture the queen if it moves there.)

How does Black gain a winning advantage, then? (1...Rxc1. If 2.Rxc1 Nxf3, forking the king and queen. If 2.Qxc1 Qxg2#. White has no good options.

Combining tactics

The position to the left arose with White to move in a 2007 game between two strong players, Jakovljevic, a master, and Vukic, a grandmaster. As is usually the case, the players had to use several concepts together.

White tried to create a fork. What move did he make to get Black’s queen to move to a square where it could be forked? 1.Re8 (If Black had captured the rook with 1...Qxe8 White would have played 2.Nf6+, taking advantage of the pin on the bishop to win the queen.) 1...Qd3. What is Black attacking? The bishop is under a real threat of being captured with check. The knight, while technically under attack, is
Keeping the initiative with forks

protected both by White’s rook and queen. Still, it is good to respond to an attack with a threat of one’s own. 2.\textit{Rx}f8+ \textit{K}xf8 White continues the attack with a forcing move. Black does not have time to capture White’s bishop because Black is in check.

White continues the attack with a fork, and a fork that does not allow Black any time to create its own attack. What move for White will do that? 3.\textit{Q}e8+ Not only does this make a fork between the king and rook, but the king must move to a square so that when White captures the rook, it will be check again. 3...\textit{K}f7 4.\textit{Q}xb7+ \textit{K}e6 Black had other options, but White now has a winning game.

What fork did White now use? 5.\textit{N}c5+ forking the king and queen. Black gave up at this point.

A Grandmaster example

Strong players always look for opportunities to win. It is a myth that grandmasters will agree to draws quickly when facing each other or that their games always are long and complicated. Here is a game between two grandmasters played in 2008. Grigorian is using the white pieces and Tregubov is playing Black.

1.\textit{N}f3 e5 2.e4 \textit{N}c6 3.\textit{N}c3 e5 4.e3 \textit{N}f6 (see diagram)

Review of opening principles

Both players are doing what they can to control the center and develop their pieces. Grandmasters use the same concepts as beginners, they just usually use them better. Those concepts are:

1) Control the four center squares,

2) Develop the minor pieces, getting them off of their starting squares and out towards the center where they can help, and

3) Protect the king. Usually castling is the best way to keep a king safe.
5.d4 exd4 6.exd4 e4
[Diagram on right] Black could have continued trading, but White had as many things controlling d4 as Black had attacking it, so Black would not have gained anything. What is Black’s threat this way? This is not a complicated threat, Black is attacking White’s knight on f3, forcing it to move. White elects to move the knight to the center. 7.Ne5 Bb4 pinning White’s knight to the king. This absolute pin removes some pressure from Black’s pawn on e5.

8.Bd2 breaking the pin but also blocking White’s queen from protecting the d-pawn. 8...Nxd4
9.Nxe4
[Diagram] Both sides are visualizing attacks. White has just discovered an attack on Black’s bishop and is heading towards Black’s king with a pair of knights. What square do you think Black is looking at? (Black would like to get a knight safely to c2, forking White’s king and rook.)

9...Qe7 with many tactical purposes. Not only is Black protecting his bishop on b4 (it is under attack from White’s bishop) by placing the queen along the e-file where White’s king still is, Black also hopes to use the pin on White’s knights to his advantage. 10.Bxb4 Qxb4+ 11.Qd2 (probably expecting the trade of queens, but Black sees that his queen is protected in another manner). 11...Nxe4! White gives up, seeing that after he captures the queen with 12.Qxb4 Black wins the queen right back with the royal fork of 12...Nc2+ and will be ahead by a knight with a better position.
Many impressive games result when the players are looking for the tactics. In the following game, Black keeps the pressure on with one fork after another.

1.e4 e5 2.d4 exd4 3.Qxd4 (It is somewhat dangerous to bring the queen into the center early, as the opponent can gain time to develop pieces by attacking the queen. That happens here.) 3...Nc6 4.Qd3 [Diagram] It might have been better to retreat the queen to its starting square. White did not want to admit making such a mistake so placed the queen where both bishops still could move.

4...Nf6 5.Be4 Ne5 Not only is Black attacking White’s bishop, White is placing both knights in places where they can make enormous threats.

6.Bb3 Bb4+ (See the diagram below.)

Had White played 7.Nc3 he would have been a little worse off because Black would capture the knight with 7...Bxc3+ leaving White with the unenviable choice of doubling the c-pawns with 8.bxc3 or losing a pawn with 8.Qxc3 Nxe4. However, if White plays the simple 7.Bd2 the game is about even although Black is ready to castle while White still must develop his knights. However, White plays the inaccurate 7.c3 exposing the king to a devastating attack. Can you find the series of fork attacks that will win the game?

7...Bc5 Where is the fork that prevents White from playing 8.Qxc5? (Ans. 8...Nxd3) 8.Qg3 Where is Black’s next fork attack? (Not only knights can create forks. 8...Bxf2+ forks the king and queen.) If Black moves the king to get out of check but does not capture the bishop, Black’s bishop will capture the queen. If White plays 9.Qxf2 what does
Black play? (Ans. 9...Ne3+ with another royal fork.) If White plays 9.Kxf2 what does Black play? (Ans. 9...Nxe4, with the final royal fork of this chapter.)