

Step 4

2 Test / Mix (2nd + 3rd step): A

- 1) 1. Qb4 threatens mate and win of a piece (double attack: queen)
- 2) 1. ... Qd2+ 2. Qxd2 Rg6# (luring away + mate); 1. ... Rg6+? 2. Qxg6 hxg6 3. Kxg6+ and wins.
- 3) 1. Ng6 (trapping thanks to pinning)
- 4) 1. ... Re1+ 2. Rxe1 Qxd4+ (luring away + material); 2. Kf2 Re2+
- 5) 1. Bxf6 Qxf6 2. Qh7# (taking + mate)
- 6) 1. Rh5+ gxh5 2. Qf6# (luring away+ mate)
- 7) 1. ... Bg6 (pin)
- 8) 1. Rf3+ exf3 2. Qxg5 (discovered attack)
- 9) 1. Nc6+ Ka8 2. Nxe7; 1. ... Rxc6 2. dxc6 (double attack: knight)
- 10) 1. b4 (trapping)
- 11) 1. ... Ra6+ 2. Kxa6 (stalemate)
- 12) 1. 0-0-0+ and 2. Nxb5 (defending against a pin)

3 Test / Mix (2nd + 3rd step): B

- 1) 1. Qxh7+ Rxh7 2. Ng6# (taking + mate)
- 2) Drawing
- 3) 1. Nd6+ Qxd6 2. Ba6# (discovered attack)
- 4) 1. g3 Rxf3 2. Qxh6+ Qh7 2. Bxg7+ (attack on a pinned piece)
- 5) 1. ... Nf3+ 2. Qxf3 Qe1+ (discovered attack)
- 6) 1. Bd6 Bxd6 2. Qh8# (discovered attack)
- 7) 1. ... Ba4 (trapping thanks to a pin)
- 8) 1. ... Nxf3+ 2. Nxf3 R8g2# (capturing + mate)
- 9) 1. Rc6+ Kf7 (1. ... Kxd5 2. Bg2#) 2. Rxe5 (chasing away + material)
- 10) 1. Ne5+ Ke8 2. Rxc8# (double check)
- 11) 1. ... Rb8 (trapping)
- 12) 1. ... Rc3+ 2. Kxc3 (stalemate); 2. Kb2? Kxb4

5 Elimination of the defence / Interfering: A

- 1) 1. Nf5+ followed by 2. Rxh3.
- 2) 1. Nc6+ bxc6 2. Qxc5
- 3) 1. Bb8 and the rook on a8 is trapped.
- 4) 1. ... Nf4 (threatens 2. ... Ne2+) 2. exf4 Qxd6
- 5) 1. ... Nf3+ 2. exf3 Qxd1+
- 6) 1. ... Be2 and White must give up an exchange.
- 7) 1. ... Bb5 2. axb5 Qxe2#
- 8) 1. Ne4 with the threats 2. Qxe8 and 2. Rxe1. On 1. ... Qxe4

follows 2. Qf8+ and mate. Less good is 1. Ne2 because after 1. ... Qxf1+ 2. Qxf1 Nxe2 Black can play on.

- 9) 1. Rg6 fxg6 2. Qxg7#
- 10) 1. ... c4+ 2. Kh1 Qxb5

6 Elimination of the defence / Interfering: B

- 1) 1. ... Bb3 2. axb3 Nc2#
- 2) 1. ... Bc1+ 2. Kxc1 Qxg1
- 3) 1. ... Rc1+ 2. Nxc1 Qd1# or 2. Rxc1 Qxb7
- 4) 1. d5 cxd5 2. Rg1+; on 1. Rg1+ follows 1. ... Rg5.
- 5) Drawing
- 6) Drawing
- 7) 1. Rc6 dxc6 2. Nxf6+; bad is 1. Nc6? Nxe4
- 8) 1. e6 fxe6 (1. ... Bxe6 2. Nxe6)
2. Qxg4 (2. ... e5 3. Nf5 or 3. Ne6)
- 9) 1. ... Nf3+ 2. Kf1 Rxf6; 2. Rxf3 Rxh6
- 10) 1. Rd8+ Bxd8 2. Qe8# or 1. ... Rxd8 2. Qxb7
- 11) 1. Bd6 Qxb3 2. Rf8#; 1. ... Rxd6 2. Qb8+; 1. ... Nxd6 2. Qxe6+
- 12) 1. g4 Qxf3 2. Rc8+ and mate

8 Double attack: Luring: A

- 1) 1. ... Rd2+ 2. Qxd2 Nf3+
- 2) 1. Qxf6+ Kxf6 2. Ne4+
- 3) 1. Qxc6 Qxc6 2. Nxe7+
- 4) Drawing
- 5) Drawing
- 6) 1. Bh6+ Kxh6 2. Nf7+; 1. ... Kh8 2. Nf7#
- 7) 1. Qh8+ Kxh8 2. Nxc6+ and 3. Nxe7
- 8) 1. Bxf7+ Kxf7 2. Ne5+ (better 1. ... Kd8)
- 9) 1. ... Qxg3+ 2. Kxg3 Ne4+ and 3. ... Nxd2
- 10) 1. ... Bg5 2. Qxg5 (the queen is trapped) 2. ... Nh3+
- 11) 1. ... Rc1 2. Qxc1 Ne2+ (the rook on f2 is pinned)
- 12) 1. Qxf8+ Kxf8 2. Ne6+ and 3. Nxd8; 1. Ne6? Qxe7 or 1. Bxg7 Nxc7 2. Qxg7+ and 3. Ne6+ is only an exchange.

9 Double attack: Luring: B

- 1) 1. ... Rxc2+ 2. Kxc2 Qe4+ and 3. ... Qxb1
- 2) 1. ... Rxf1+ 2. Kxf1 Qd1+ 3. Kg2 Qxg4+
- 3) 1. Bxf7+ Kxf7 2. Qd5+; 1. Qd5? Qe7
- 4) 1. ... Rxc2+ 2. Kxc2 Qg5+
- 5) 1. Nd7 Rxd7 2. Qh3+; 1. Qh3+? Kg7 2. Nd7 Qd6 3. Nxb8 Rh8
- 6) 1. d5 Bxd5 2. Qd4
- 7) 1. Rxd6 Rxd6 2. Qe5

- 8) 1. ... Rxd4 2. Rxd4 Qe5
 9) 1. Rxb7 Rxb7 2. Qa8+; 1. Rxe7 Qxg2#
 10) 1. ... Rxa5 2. Rxa5 Qe1+
 11) 1. Bxa6 Rxa6 2. Qd3
 12) 1. b4 Bxb4 2. Qd4

10 Double attack: Luring: C

- 1) 1. Rf8+ Kxf8 2. Bxg7+
 2) 1. Bb7+ Kxb7 2. c6+
 3) 1. Qxh7+ Kxh7 2. Nxd6+; 1. Nxd6? Qe3+
 4) 1. ... Qxg2+ 2. Kxg2 d4+; 1. ... d4 2. Qd2 or 2. Qc4+
 5) 1. ... Rxf1+ 2. Kxf1 Bh3+ (2. ... Bd3+ 3. Nxd3)
 6) 1. ... Nxd4 2. Qxd4? Ng4+
 7) 1. Rd7+ Kxd7 (1. ... Ke6 2. Qd5#) 2. Nxf6+
 8) 1. Rd4 Qxd4 2. e6+
 9) 1. ... Rxf1+ 2. Kxf1 Bxg2+! (2. ... Bb5+ 3. Rxb5)
 10) 1. Rxd7 Qxd7 2. Nh6+
 11) 1. ... Qd3+ 2. Kxd3 Bxc6+
 12) 1. Bxc5 Qxc5 2. axb4

11 Double attack: Luring: D

- 1) 1. Nxe5 Rxe5 2. f4 (double attack: pawn)
 2) 1. Rb8 Rxb8 2. Bxe5+ (double attack: bishop)
 3) 1. Rg8+ Qxg8 2. Rg2+ (X-ray check)
 4) 1. Rxd3 Rxd3 2. Be4 (double attack: 2 pieces)
 5) Drawing
 6) 1. Qc4+ Qxc4 2. g8Q+ (X-ray check)
 7) 1. ... Nxc2 2. Qxc2 Bxd3+ (double attack: bishop)
 8) 1. ... Qxf1+ 2. Kxf1 Rxf5+ (double attack: rook)
 9) 1. Be7 Qxe7 2. f6 (double attack: 2 pieces)
 10) 1. Qxd7 Qxd7 2. Bxe6+ (double attack: bishop)
 11) 1. ... Rxc4 2. Qxc4 Bd5 (X-ray attack)
 12) 1. Bc4+ Kf8 2. Rxe8+; 1. Rxe8? Rxa6+ (double attack: bishop)

13 Elimination of the defence / Blocking: A

- 1) 1. e7+ Rxe7 2. Qh8#
 2) 1. Qxd5+ Qf7 2. Rh8#
 3) 1. Qb8+ Rxb8 2. Nc7#
 4) 1. ... Rd1+ 2. Qxd1 Qf2#; 2. Kxd1 Qxf1#
 5) 1. d6+ Rxd6 2. Bh4#
 6) 1. Qg8+ Rxg8 2. Nf7#; 1. Nf7+ Rxf7 doesn't win.
 7) 1. ... Rg2 2. Qxg2 Qh5#; 2. Qd1 Rxb2
 8) 1. Qg7+ Nxg7 2. Nh6#
 9) 1. Rh3+ Bxh3 2. g3#
 10) 1. ... Rf1+ 2. Qxf1 Qe3#; 2. Kxf1 Qe1#
 11) 1. ... e5+ 2. dxe5 Qd2#; 2. Kxe5 Qxg3+
 12) 1. Re7 Rxe7 2. Qh7+; 1. ... g6 2. Rxd7

14 *Elimination of the defence / Blocking: B*

- 1) 1. ... Rg1+ 2. Bxg1 Qe2# g4#
- 2) 1. Qe7+ Rxe7 2. Nf6#; 1. Nc7+? Qxc7 9) 1. Qh7+ Nxh7 2. Ng6+ Kg8 3. Bd5#
- 3) 1. Rh8+ Nxh8 2. Bh7# 10) 1. ... g3 2. fxg3 Qxh2+ 3. Kxh2 Rh5#; 2. Rxc3 Re1+ 3. Rg1 Qg2#
- 4) 1. Ne7+ Nxe7 2. Rxf8+ Kxf8 3. Rd8# 11) 1. ... Bxf3+ 2. Bxf3 Be5; 1. ... Be5? 2. f4
- 5) 1. Rf8+ Rxf8 2. Ng7# 12) 1. ... Rf2+ 2. Rxf2 Qh5+ 3. Kg1 Qh1#
- 6) 1. Bg8 Rxc8 2. Nf7#
- 7) 1. Rf8+ Qxf8 2. Rxf8+ Rxf8 3. Qxc6#
- 8) 1. Rf4+ Kh5 2. Rh4+ gxh4 3.

15 *Test / Mix: C*

- 1) 1. Rd7+ Nxd7 2. Qg7#; 1. ... Qxd7 2. Nf6+ (interfering and double attack: luring) attack: luring)
- 2) 1. Nf6 Bxf6 2. Qe4; 1. ... gxf4 2. Rxh7# (blocking) 8) 1. R1e6 Bxe6 2. Qxh6; 1. ... Qxe6 2. Rxe6 Bxe6 3. Qxh6 f6 4. Qg6+ (interfering)
- 3) 1. ... b4 2. Bxb4 Qb7+; 1. ... Qb7+? 2. Qf3 (double attack: luring) 9) 1. ... Ra2+ 2. Bxa2 Nc2# (blocking)
- 4) 1. ... Qxc3+ 2. Kxc3 Nxe4+ (double attack: luring) 10) 1. ... Bxc2+ 2. Kxc2 b3+ (discovered attack: luring)
- 5) 1. ... Rxd4 2. Qxd4 Ng4+ (discovered attack: luring) 11) 1. Nd5 exd5 2. Rxe7; 1. ... Rxd7 2. Nxe7+ or 1. ... Qxd7 2. Nxf6+ (interfering)
- 6) 1. ... Rh4+ 2. Nxh4 g4# 12) 1. Bc7 Rxc7 2. Qe5 (double attack: luring)
- 7) 1. Rxb2 Rxb2 2. Qc3 (double

16 *Test / Mix: D*

- 1) 1. ... Rd2 and 2. ... Nxf3+ (double attack: luring) attack: luring)
- 2) 1. Rh8+ Bxh8 2. Qxf7#; 1. ... Kxh8 2. Nxf7+ (luring away + mate or double attack: luring) 6) 1. Qxd6 Kxd6 2. Bf4+ (discovered attack: luring)
- 3) 1. Rxd4 Rxd4 2. Qe3 (double attack: luring) 7) 1. Qh7+ Nxh7 2. Ng6# (blocking)
- 4) 1. Qg7+ Kxc7 2. Rxc7# (discovered check: luring) 8) 1. e7 Nxe7 2. Qc7 (double attack: luring)
- 5) 1. Rxf6+ Kxf6 2. Qf2+ (double 9) 1. Qa4+ Ra5 2. Qc6+ Bb6 3. Qc8# (blocking)
- 10) 1. Qd5+ Qxd5 2. Nxe7+

(double attack: luring)

- 11) 1. ... Ne3 2. Nxd6 Qxd3+; 2.
Qxe3 Qxd3+; 1. ... Nc3+? 2.
Kc2 (interfering)

- 12) 1. Qxh7+ Kxh7 2. Nf5+ Kg8 3.
Rxf7# (discovered check:
luring)

18 Pin / Placing the back piece: A

- 1) 1. h6+ Kxh6 (1. ... Kg8 2. Qf6)
2. Qh1 (2. Rxd4 Kg7)
- 2) 1. e8Q+ Kxe8 2. Ba4; 1. Ba4?
Rb1+
- 3) 1. Rh8+ Kxh8 2. Bc3; 1. ...
Qxh8 2. Qg6#; 1. Bc3? Qxg3+
2. fxg3 Bxh5 (often missed)
- 4) 1. g4+ Kxg4 2. Be6
- 5) 1. ... Nxd3 2. Qxd3 e5; 1. ...
e5? 2. Bxc5
- 6) 1. Qxc6+ Rxc6 2. Nf4

- 7) 1. Nxc6 Qxc6 2. c4; 1. c4?
Nde7
- 8) 1. ... Qf5 2. Bd3 d5
- 9) 1. Bh7+ Kxh7 2. Qxe6
- 10) 1. Bxc5 Qxc5 2. Qxd3; 1. Qxd3
cxd3 2. Bxc5 and 3. Bxc8 is
nothing special.
- 11) 1. Nxc6 Qxc6 2. Qxc4
- 12) 1. Bxf7+! Kxf7 2. Qxe4; 1.
Qxe4? Nxe4 2. Bxf7+ Kh8 (2.
Rxf7 Nd6)

19 Pin / Placing the front piece: A

- 1) 1. Bxe5+ Nxe5 2. Qg3
- 2) 1. Rxf4+ Qxf4 2. Rf1
- 3) 1. Rxd6 Qxd6 2. Bg3
- 4) 1. e5 Qxe5 2. Re1
- 5) 1. Qf6+ Qg7 2. Re7! Qxf6 3.
Rxb7#
- 6) 1. Rxe5 Rxe5 2. Re1
- 7) 1. Nxc5 Nxc5 2. Na4

- 8) 1. Rxc7+ Rxc7 2. Qc8
- 9) 1. ... Rxc7+ 2. Rxc7 Qxd2
- 10) 1. ... Qxf3+ (1. ... Ng4 2. hxg4)
2. Qxf3 Rxe2+
- 11) 1. Qxh7+ Qxh7 2. Nf7#; 1.
Ng6+? Rxc7 2. Qxc7 Re1#
- 12) 1. e6 Bxe6 2. Qxg4

20 Pin / Placing front or back piece: A

- 1) 1. Bxd7+ Kxd7 2. Rh7
- 2) 1. ... Ra1+ Kxa1 2. Qxd2
- 3) 1. ... Rxf2+ 2. Kxf2 Bb6
- 4) 1. Qxc7 Rxc7 2. Bf4
- 5) 1. ... Qxg2+ 2. Qxg2 Rxf1+
- 6) 1. ... Rxc4+ 2. Bxc4 Qxe2
- 7) 1. ... Rxc3 2. Qxc3 Bf6

- 8) 1. ... Rxd4 2. Rxd4 c5
- 9) Drawing
- 10) 1. Qxd5+ Qxd5 2. Bg2; 1. Bg2
Bb7
- 11) 1. Rxb8 Kxb8 2. d4
- 12) 1. Qa3+ Re7 2. Ng8!

21 Endgame / Passed pawn: A

- 1) 1. ... Bc1 2. Kh5 Bxf4; 2. ...
g1Q? 3. Nh3+

- 2) 1. ... Bb2
- 3) 1. ... e4+ 2. Bxe4 Nxe4

- 4) 1. Rxd8+ Nxd8 2. e7; 1. Rd6 g5
2. Rxc6 Kg7 is not sufficient.
- 5) 1. Rd7 Rxd7 2. exd7
- 6) 1. ... Be1+ 2. Ke2 b1Q 3. Rb5+
Bb4; 2. Kxe1 b1Q+
- 7) 1. ... Qxf3 2. gxf3 e2
- 8) 1. Bh6+ Kxh7 2. Bxf8; 1.
Bf6+? Kxh7
- 9) 1. Ne4; 1. Nf5? Re8
- 10) 1. Bc4+ Kh8 2. Bf7 or 2. Bb5
- 11) 1. Rxf8+ Kxf8 2. d7+
- 12) 1. ... Ra3 2. Rxa3 Bxd6+

22 Endgame / Passed pawn: B

- 1) 1. Qc8+ Nxc8 2. d7
Kf7 2. Rc8 Ra5+
- 2) 1. Rh5 Rxh5 2. fxe7
8) Drawing
- 3) 1. Qe6+ Qxe6 2. dxe6
9) 1. ... Qxc5 2. Nxc5 a7
- 4) 1. Rc7 d4 2. Rc8
10) 1. Rd8 Rxd8 2. Bf6+
- 5) 1. Nb7+ Nxb7 2. a6 Kc7 3. a7
11) Drawing
- 6) 1. Be5+ Bxe5 (1. ... Kxe5 2.
g7) 2. a7
12) 1. Rg7+ Kh8 2. Rh7+ Kg8 3.
Rh8+ Kxh8 4. g7+
- 7) 1. Rc8+ Rxc8 2. d7+; 1. d7+

23 Endgame / Defending against the passed pawn: A

- 1) 1. Bb3 (1. Bb5? Kc2) 1. ... Kc1
(1. ... Ka1 2. Bc2) 2. Ba2 ½-½
Kb2 3. Ba2 ½-½
- 2) 1. ... b3+ 2. Kxb3 Ba5 ½-½
7) 1. ... Nh1+ Kg2 2. Ke3 Kxh1 3.
Kf2 stalemate
- 3) 1. Bd5+ Kg7 2. Ba2 ½-½
8) 1. ... Ke5 2. a7 Be6 3. a8Q
Bd5+ ½-½
- 4) 1. Bc4+ Kxc4 2. Kxe2 Kc3 3.
Kd1 Kd3 stalemate
9) 1. Bd7 Kxc7 2. Bxh3 ½-½
- 5) 1. Nd4 c1Q 2. Nf3#; 1. ... Kg5
2. Nxc2 1-0
10) 1. Kf2 d1Q 2. Rxe1 1-0
- 6) 1. Bb1 (1. Bd3+? Kc3!) 1. ...
Kb3 (1. ... Kc3 2. Ba2) 2. Kd3
11) 1. Kd7 a2 2. Ke7 a1Q 3. Bf6+
½-½
- 12) 1. Ne4 g2 2. Nd2+ ½-½

25 Double attack / Eliminating the defence: A

- 1) 1. Bxc6+ Bxc6 2. Ne5+
(capturing)
6) 1. ... Qxf3 2. gxf3 Ne2+
(capturing)
- 2) 1. Qxe5 Rxe5 2. Nf6+
(capturing)
7) 1. Bxc7 winning a pawn (luring
away)
- 3) 1. a5 Nc8 2. Nd5 (chasing
away)
8) 1. ... Bxb2 (capturing)
- 4) 1. Qxe8+ Rxe8 2. Nc6+
(capturing)
9) 1. Rxf7+ Rxf7 2. Ne6+
(capturing)
- 5) 1. ... d4 2. Ne4 Nb3+ (chasing
away)
10) 1. Bxb7 Bxb7? 2. Ne6+ (luring
away)
- 11) 1. ... Nhx3+ 2. Bxf3 Nxh3+

(luring away)

(interfering)

12) 1. ... g4 2. Nf4 Nf3+

26 Double attack / Eliminating the defence: B

- 1) 1. d5 Ne5 2. Qa4+ (chasing away)
- 2) 1. Bxc6 dxc6 2. Qa3+ (capturing)
- 3) 1. Nxf5 exf5 2. Qxd5+ (luring away)
- 4) 1. f4 Re7 2. Qb2+; 1. Qb2? Qb6+ (chasing away)
- 5) 1. Ng5 fxg5 2. Qh5+; 1. ... g6 2. Qh4+ (interfering)
- 6) 1. Bxf6 Qxf6 2. Qd5+ (capturing)
- 7) 1. Nxg6+ hxg6 2. Qh4+ (luring away)
- 8) 1. ... Ne3 2. fxe3 Qxe3+ (luring)
- 9) 1. Re7 Qxe7 2. Qxd5+ (luring away)
- 10) 1. ... Bxg2 2. Qxg2 Qa5 (luring away)
- 11) 1. Nd4 exd4 2. Qb3+ (interfering)
- 12) 1. ... a6 (or first 1. ... Qg6+ and 2. ... a6) 2. Qb3 Qg6+ (chasing away)

27 Mate / Magnet: A

- 1) 1. Re8+ Kxe8 2. Qe7#
- 2) 1. Rh8+ Kxh8 2. Qh7#
- 3) 1. Qh6+ Kxh6 2. Rh1#; 1. ... Kg8 2. Rc8+ and mate
- 4) 1. ... Ra3+ 2. Kxa3 Qa6 and mate
- 5) Drawing
- 6) 1 Drawing
- 7) 1. a4+ Kxa4 2. Qb3+
- 8) 1. Qf8+ Kxf8 2. Rxf7+ Ke8 3. Rf8+ Kd7 4. R2f7#
- 9) 1. Rh8+ Kxh8 2. Qe8+ Kh7 3. Qg8#
- 10) 1. Rh8+ Qxh8 2. Qf7#
- 11) 1. ... Rh2+ 2. Kxh2 Qf4+ 3. Kh1 Qf3+ 4. Kh2 Qg2#
- 12) 1. Qf6+ Kxf6 2. Be5#; 1. ... Kg8 2. Be5 with mate.

28 Mate / Magnet: B

- 1) 1. Rc4+ Kxc4 2. Qc3#
- 2) 1. Rxh7+ Kxh7 2. Qf7+ Kh6 3. Qxg6#; 2. ... Kh8 3. Nxg6#
- 3) 1. ... Qh1+ 2. Kxh1 Bf3+ 3. Kg1 Rd1#
- 4) 1. Qf8+ Kxf8 2. Rd8#
- 5) 1. ... Bd3+ 2. Kxd3 Qd1#
- 6) 1. ... Qg1+ 2. Kxg1 Rgxc2+ 3. Kh1 Rxh2+ 4. Kg1 Rbg2#; 2. Rxg1 Nf2#
- 7) 1. Rb8+ Kxb8 2. Rh8#
- 8) 1. ... Rh1+ 2. Kxh1 Qh3+ 3. Kg1 Nf3#
- 9) 1. ... Rg1+ 2. Kxg1 Qxh2+ 3. Kf1 Qh1#
- 10) 1. ... Ra3+ 2. Kxa3 Qa1+ 3. Kb3 a4#
- 11) 1. ... Bxh3 2. Kxh3 Qf4 and mate op g3.
- 12) 1. Rh7+ Kxh7 2. Qh2+

29 Strategy / Pawn structure: A

- 1) 1. ... c5 2. bxc5 Bxc5

The black bishop is more active now; beside that the white pawns are split up.

- 2) 1. Nd5+ and 2. Nxf6

The black pawn structure got worse; especially pawn f7 is a problem child. Black can try to play f5 and f6, but then f5 will become a target for the white bishop.

- 3) Drawing

- 4) 1. ... g5 2. fxg6? Bxg4

Thanks to the pin of the white f-pawn Black can solve the problem of his backward pawn. Otherwise the rook should take over the protection of the g-pawn. The rook is no longer occupied by protecting the h-pawn.

- 5) 1. Bxc6+ bxc6 2. Qxf3

Before White takes back on f3, he weakens the pawn structure of the opponent.

- 6) Drawing

- 7) 1. f5 Bxc4 2. bxc4; 1. Bxe6 fxe6 and there is nothing to worry about.

White allows a double pawn. Black can not protect his weak pawn anymore.

- 8) 1. e5 Bc7 2. Bxg6

White doesn't take on d5 because after 1. exd5 exd5 White remains with a pawn on e3 which can be attacked very easily. He prefers to move his e-pawn forward with tempo to deliver Black a weak double g-pawn.

- 9) 1. Rc1 c5 2. Rc4

Of course White doesn't exchange on d5. The weak pawn on c6 must remain on the board. The rook is the best piece to attack the weak c- and a-pawn.

- 10) 1. ... h4 2. Bxe5 dxe5

Black gets a strong pawn duo in the centre.

- 11) 1. h5 Bf5 2. h6

Advancing the h-pawn is worsening the black pawn structure after 2. ... gxh6 3. Bxf6 or after 2. ... Bf8, when it is up to White in which moment he will take on g7.

- 12) 1. Re2

It would be foolish to exchange the weak pawn on e5 for the f2-pawn. White can still take it on the next move.

30 Test / Mix: E

- 1) 1. Bc3 Bxc3 2. c7; 1. c7? Bxc7
2. Bxc7 Kg5 (cashing in a passed pawn)
- 2) 1. ... Rxd4 2. Rxd4 Qg5 or 1. ... Qg5 (double attack: eliminating the defence)
- 3) 1. Nxd5 winning a pawn (placing the front piece)
- 4) 1. ... Qh2+ 2. Kxh2 Nf3+ 3. Kh1 Rg1# (magnet)
- 5) 1. d6 Bxd6 2. Rb6 (placing the front piece)
- 6) 1. Rh8+ Kxh8 2. Qxh6+ Kg8 3. Qxg7# (placing the back piece)
- 7) 1. Nd8 or 1. Bd8 (interfering)
- 8) 1. Ke3 Ng5 2. Bf6+; 1. ... Nd6 2. Bc5 (cashing in a passed pawn)
- 9) 1. ... Qxf3+ 2. Kxf3 Nh4+ 3. Kf4 g5# (mate)
- 10) 1. ... Rxc1 2. Rxc1 Qh6 (double attack: luring)
- 11) 1. Nc6! Rxe3 2. Qxc2; 1. ... Rxc6 2. Rxe7 (interfering)
- 12) 1. ... Qxe2 2. Rxe2 f6 (placing the back piece)

31 Test / Mix: F

- 1) 1. ... Bxe3 2. fxe3 Nc2 (double attack: luring)
- 2) 1. f4 Bd6 2. Qxe6+ (attack on a pinned piece)
- 3) 1. Qa8 Rxa8 2. Nxe7+ (double attack: eliminating the defence)
- 4) 1. Qf8+ Kxf8 2. Rh8#; 1. ... Rxf8 2. Ne7# (luring away + mate/ blocking)
- 5) 1. ... Be7 2. Qxg5 Bxg5+; 2. Rdh1 Qxf4 3. Rxf4 Bg5 (double attack)
- 6) 1. ... Be2 2. f3 Nxc3; 2. Qxe2 hxc6 (defending against a pin)
- 7) 1. Bc4 Rg7 2. Rh8+ (double attack: eliminating the defence)
- 8) Drawing
- 9) Drawing
- 10) 1. Rh7+ Rxh7 2. Qxg5+ Kxg5 3. d8Q+ (cashing in a passed pawn)
- 11) 1. ... Bf6+ 2. Bc3 Qd2 (placing the front piece)
- 12) 1. Qg8+ Kxg8 2. Ng6 (mate)

32 Rook ending / Passed pawn: A

- 1) 1. Ra6 Rxa6 2. bxa6 and 3. a8Q+
- 2) 1. Rd6+ Rxd6 2. b8Q
- 3) 1. Rh3+ Kg8 2. Rg3 Rxg3 3. d7; 1. Rf8+? Kh7 2. Rd8 Rg5 3. Kd2 Kg7
- 4) 1. ... Rg4+ 2. Kc5 Rh4 with promotion.
- 5) 1. Re3 Kxe3 2. e7 Rd1+ 3. Kc2 Rd2+ 4. Kc1 with promotion
- 6) 1. Rd4 Kxd4 2. d7 with promotion.
- 7) 1. ... Rd1+ 2. Kxd1 exf2 with promotion.
- 8) 1. h6+ Kg8 2. h7+ Kg7 3. Rxf8
- 9) 1. ... Rb2+ 2. Ke3 Rb3+ 3. Rxb3 a1Q or 2. Kd1 Rb1+
- 10) 1. Kb4 Ra1 2. Rc5+ and 3. Ra5; 1. Rc5+?? Rxc5 with check!
- 11) 1. exd6 Rxe1+ 2. Kf2 Re8 3.

dx7 and 4. d7
12) 1. ... Rc1! followed by 2. ... d2

because 2. Ke3 fails to 2. ...
Re1+.

34 Double attack / Chasing or aiming: A

- | | |
|---|---|
| 1) Drawing | Qa8+? Rd8 |
| 2) 1. ... Qc5+ 2. Kf1 Ne3+; 2. Kh1 Nf2+ | 8) 1. ... Qe1+ 2. Kg2 Qe4+; 1. ... Qe4+? 2. Qg2 |
| 3) 1. Nb6+ Kb8 2. Nd7+ | 9) 1. Qc2+ Kg8 2. Qc8+ |
| 4) 1. Nc7 and 2. Ne6+ or 2. Nxa8 | 10) 1. Qh5 g6 2. Qd5 |
| 5) 1. ... Nf3+ 2. Kxg2 Nd2 | 11) 1. Qa4 b6 2. Qe4 |
| 6) 1. ... Nc5 and 2. ... Nd3 | 12) 1. Qa7 and 2. Qa2+ |
| 7) 1. Qe8+ Kh7 2. Qe4+; 1. | |

35 Double attack / Chasing or aiming: B

- | | |
|--|--|
| 1) 1. Qe5+ Kg8 2. Qd5+ winning a rook. | 7) 1. f4 Re6 2. Ng7+ |
| 2) 1. Nf5 Qf6 2. Nh6+ | 8) 1. ... Qd4+ 2. Be3 Qxb2 |
| 3) 1. ... Bb7+ 2. Kg1 Ne2+ | 9) 1. Be3 Qa8 2. Nc7+ |
| 4) 1. Qb2 Rd1 2. Qb4+ | 10) 1. ... Nd4 2. Qe3 Ne2+ |
| 5) 1. ... Qd4+ 2. Qf2 Qb4 | 11) 1. b4 Bd4 2. Qe4+ |
| 6) 1. ... Qd1+ 2. Kg2 Qc2+ | 12) 1. Nc5! Re8 2. Na6; 1. ... dxc5 2. Rd7 |

37 King's attack / Mating pattern (♔♕): A

- | | |
|--|---|
| 1) 4 mating patterns | 8) 1. Ne7+ Kh8 2. Ng6+ |
| 2) 4 mating patterns | 9) 1. Qa8+ Kh7 2. Qh8+ |
| 3) 4 mating patterns | 10) 1. Ra8+ Kxa8 2. Bxc7 gxh3 3. Ra1# |
| 4) 1. ... Qxf1+ 2. Kxf1 Bd3+ | 11) 1. Qxd4 Bxd4 2. Bxd4 b5 3. Rh8# |
| 5) 1. Rf3+ Kh8 2. Ng6+ hxg6 3. Rh3# | 12) 1. Be6+ Kb7 2. Bd5+ Ka7 3. Ra8#; 1. Bd5+ Qxh8 |
| 6) 1. Qxg8+ Kxg8 2. Rh8+ | |
| 7) 1. ... Rxh2+ 2. Qxh2 Qxh2+ 3. Kxh2 Rh8# | |

38 King's attack / Mating pattern (♔♖): B

- | | |
|--------------------------|--------------------------------------|
| 1) 4 mating patterns | 7) 1. Ne7+ Kh8 2. Qxh7+ |
| 2) 4 mating patterns | 8) 1. Ndf7+ Kh7 2. Ng5+ |
| 3) 4 mating patterns | 9) 1. Qxh6+ Bxh6 2. Ng5+ Kh8 3. Rh7# |
| 4) 1. Qxh7+ Kxh7 2. Rh3+ | 10) 1. Qg6 fxg6 2. Rxg7+ |
| 5) Drawing | 11) 1. ... Qh3 2. Rbg1 Qxh2+ |
| 6) Drawing | |

12) 1. Qxg7+ Nxg7 2. Rxh6+

39 King's attack / Mating pattern (♔♚): C

- | | |
|------------------------------|-----------------------------|
| 1) 4 mating patterns | 7) 1. Ng6+ Kh7 2. Ne5+ |
| 2) 4 mating patterns | 8) 1. Qxc7+ Kxc7 2. Nd5+ |
| 3) 4 mating patterns | 9) 1. ... Qxg2 2. Kxg2 Nf4+ |
| 4) 1. ... Qb4+ 2. Ka1 Qc3+ | 10) 1. Nef6+ gxf6 2. Bh6+ |
| 5) 1. ... Qxg2+ 2. Kxg2 Bf3+ | 11) 1. Qf6 gxf6 2. Nh6+ |
| 6) 1. Qxh7+ Nxh7 2. Ng6+ | 12) 1. Qg8+ Kxg8 2. Ne7+ |

40 King's attack / Attacking the castled king: A

- | | |
|---|--|
| 1) 1. Bxh7+ Kh8 2. Bg6+ Kg8 3.
Qh7+ Kf8 4. Qxf7# | 7) 1. ... Ng3 2. Kg1 Qg2+ 3.
Rxc2 Nh3# |
| 2) 1. Qg7+ Bxg7 2. Bxg7+ Kg8 3.
Bf6# | 8) 1. Bf6 |
| 3) 1. Qg7+ Bxg7 2. Rd8+ Bf8 3.
Rxf8# | 9) 1. Ng4 fxg4 2. Bxh7+ and
further as in position 1. |
| 4) 1. Bh6+ Kxh6 2. Qf6+ Kh5 3.
g4# | 10) 1. Qh6 Qe7 (protects f7 - see 1)
2. Qxh7+ Kf8 3. Qh8# |
| 5) 1. Qg3 Rg8 2. Qc3+ | 11) 1. Qxf7 Nxf7 2. Rg8+ Rxg8 3.
Nxf7# |
| 6) 1. Rf4 exf4 2. gxf4 and 3. Rg1 | 12) 1. Qg4+ Kh8 2. Qh4 |

41 King's attack / Attacking the castled king: B

- | | |
|--|---|
| 1) 1. Nf6+ gxf6 2. Qg3+ Kh8 3.
Bxf6# | 7) Drawing |
| 2) 1. Qxh7+ Rxh7 2. Rg8+ and
mate; 1. ... Kxh7 2. Rh5# | 8) Drawing |
| 3) 1. Ng6+ hxg6 2. Qh6+ Bh7 3.
Qxg7# | 9) 1. Qh5 Bh4 2. Qxh7+ Kxh7 3.
Rxh4+ Kg8 4. Rh8#; 1. ...
gxh5 2. Rg3+ and mate. |
| 4) 1. Ne7+ Kh8 2. Rxh7+ Kxh7 3.
Qh1#; 2. ... Nxh7 3. Ng6# | 10) 1. Qg6 hxg5 (1. ... fxg6 2.
Ne7+ Kh8 3. Nxc6+) 2. hxg5
fxg6 3. Ne7# |
| 5) 1. Ng6+ fxg6 2. Qxh7+ Kxh7
3. Rh4# | 11) 1. Qxh7+ Kxh7 2. Rh5+ Kg7 3.
Bh6+ Kh8 4. Bf8# |
| 6) 1. Nh6+ gxh6 2. Qxf6; 1. ...
Kh8 2. Qxf6!; 2. Bxf6? exf3 | 12) 1. Qc7+ Ka7 2. Qxb7+ Kxb7 3.
Rb3+ Ka7 4. Rc7# |

42 King's attack / Attacking the castled king: C

- | | |
|--|--|
| 1) 1. ... Ne2+ 2. Rxe2 Nf4 | 3) 1. Re8 Qxe8 2. Qxf6+; 1. ...
Bc4 2. Qg7# |
| 2) 1. Qxg7+ Kxg7 2. Rh8! and 3.
R1h7# | 4) 1. Qh6 Rg8 2. Re8 Qxe8 3. |

- Qf6+
- 5) 1. Nf6+ Bxf6 2. Bd3
 - 6) 1. Nf5 fxe5 2. Ne7#
 - 7) 1. Re7 Rxe7 2. Qxf8#; 1. ... Bxe7 2. Qxh7#
 - 8) 1. Bxh7+ Nxh7 2. Qxf7+ Kh8 3. Ng6#

- 9) 1. Rg3+ Kh8 2. Re4; 1. Re4? Qg7
- 10) 1. Rf5 and 2. Qh6
- 11) 1. Rxd7 Bxd7 2. Nf6+ Kf8 3. Nd5
- 12) 1. Qf6 Bxf6 (otherwise 2. Rh8+) 2. gxf6 and 3. Rh8#

44 Tactics / Seventh rank: A

- 1) 1. Qf1+ Ke8 2. Qb5+ Kf8 3. Qxc5+
- 2) 1. Rb7+ Ka8 2. Qxc8+ Rxc8 3. Rxa7+ Kb8 4. Rhg7#
- 3) 1. Ra7+ Kb8 2. Rcb7+ Kc8 3. a6 and mate op a8.
- 4) 1. ... Rxb2 2. Qxa8+ Ke7
- 5) 1. ... Qe3 2. Rxf2 Qxh3+ 3. Kg1 Qg3+
- 6) 1. ... Qxe4+! 2. Nxe4 Nf3; 1. ... Nf3? 2. Qxh7#
- 7) 1. Nf6+ Kh8 2. Qxh6+; 1. ...

- gxf6 2. Qe6+ Kh8 3. Qxf6+; 1. Qxh6? b1Q!
- 8) 1. ... Rg2 2. a8Q Rbf2 3. Ke1 Rg1#
- 9) 1. ... Nf3 2. gxf3 Rd2
- 10) 1. Qxg6 fxe6 2. Rxe7+ Kh8 3. Rh7+ Kg8 4. Rag7#
- 11) 1. Qxf4+ Nxf4 2. Rcf7+ Ke8 3. Rg8#
- 12) 1. Nxf6+ exf6 2. Re7; 1. d6!? Ne8!

45 Tactics / Seventh rank: B

- 1) 1. ... Qxd4+ 2. Qxd4 Rg2+ 3. Kh1 Rxh2+ 4. Kg1 Rbg2#
- 2) 1. Rg7+ Kh8 2. Nf8 (threatens 3. Ng6#) 2. ... Rxf8 3. Rh7+ Kg8 4. Rcg7#
- 3) 1. Nf6 Bg7 2. Qh6 and 3. Qxh7# or 3. Rxh7#
- 4) 1. Rxe7+ Kxe7 2. Rc7+
- 5) 1. Qd7 Qh8 (otherwise 2. Rf8+) 2. Rh7 Qf6 3. Rh8+
- 6) 1. c8Q Rxc8 2. Qb7; 1. ... Qxb2

2. Qc7; 1. Qb7? Re2 or 1. ... Rc8
- 7) Drawing
- 8) Drawing
- 9) 1. ... Rf8 2. Qxd2 Rxd2+
- 10) 1. Nf5! (1. Ne6 Re7); 1. ... gxf5 2. Rd7
- 11) 1. Bh6 gxh6 2. R1e7; 1. ... Rg8 2. R1e7
- 12) 1. ... Be3! 2. fxe3 Qh3+; 2. Qxe3 Qxd1; 2. Nc2 Qf3

47 Endgame strategy / Pawn ending: A

- 1) 1. h4 Kd4 2. f6 (throwing up an obstacle; the black king will remain outside the square of the pawn)
- 2) 1. a4 Kc5 2. a5 (the pawns control the king; White captures on h3 and approaches with the king)

- 3) 1. g3 g5 2. g4 Kc6 3. Kxc4; 1. g4? g5 (working with zugzwang)
- 4) 1. a5 bxa5 2. Kd2 Kb3 3. Kc1 (shifting the key squares by delivering Black a rook's pawn)
- 5) 1. ... Kb8; 1. ... b5 2. axb6 with draw (first activate the king)
- 6) 1. ... b6 2. Kf3 a6 (candidate passed pawn in front)
- 7) 1. ... Kc3 2. a4 Kxd4 3. Ke6 Kc5 4. Ke5 with a draw (first hold off the king)
- 8) 1. ... g5+ 2. hxg5 Kg6 (first weakening the pawn structure)
- 9) 1. ... a6 2. Kd2 Kb3 (activating the king but first preventing b5)
- 10) 1. ... f5 (Black must activate his king, but first he must prevent White playing e4)
- 11) 1. ... f4 2. Kc4 Kg6 (activating the king; first 1. ... Kg6 does not win after 2. g3)
- 12) 1. ... h4 (1. ... Kg4 2. Kh6 Kxg3 3. Kxh5) 2. gxh4 h5 (holding off the white king)

48 Test / Mix: G

- 1) 1. Qb8+ Kh7 2. Qb1+ (double attack: chasing)
- 2) 1. Ne6 Bxe3 2. Nxd8+ (discovered attack)
- 3) 1. ... Rxc3 2. Rxa2 Rf3+ ('seventh' rank)
- 4) 1. Qg1+ Kf8 2. Qc1 (double attack: aiming)
- 5) 1. Rg1+ Kh8 2. Qxh7+ Kxh7 3. Rh4# (mate door access)
- 6) 1. Rc7+ Kg6 2. Qd1 (double attack: chasing)
- 7) 1. ... Re2 2. Qxc5 Rgxc2+; 2. Rxc5 Rxf2 3. Rxf2 hxg5 ('seventh' rank)
- 8) 1. Qg6 Bxg3 2. f6 (king's attack)
- 9) 1. Rg4+ fxg4 2. Qg6+ Kh8 3. Qh7# (king's attack - access)
- 10) 1. h3 Nh6 2. Qe4 (double attack: eliminating the defence)
- 11) 1. ... Qxc2+ 2. Rxc2 Rdxg2+ 3. Kh1 Rg1+ ('seventh' rank)
- 12) 1. Qh5 Nc6 2. Qh2+ (double attack: aiming)

49 Test / Mix: H

- 1) 1. Ra8+ Bd8 2. Rxd8+ Kxd8 3. Nxf7+ (double attack: luring)
- 2) Drawing
- 3) 1. Bf8 Rxf8 2. Ne7# (mate)
- 4) 1. e4 Bxe4 2. Qb1 (placing the front piece)
- 5) 1. Rxf6 Qxf6 2. Qc2; 1. Qc2? Rc4 (double attack: eliminating the defence)
- 6) 1. Qxc6+ hxg6 2. Nf6+ Kg7 3. Rh7# (king's attack - access)
- 7) 1. d6 Bxd6 2. Qd2 (double attack: luring)
- 8) 1. Rf6 Qxe5 2. Qxh6+; 2. Rh6+? Kg8 (king's attack)
- 9) 1. ... Qxh2+ 2. Kxh2 Nf3+ and 3. ... Nf2# (double check: luring)

- 10) 1. ... Qg3 2. fxg3 Rxc2+ 3. Kh1
Rdd2 ('seventh' rank)
- 11) 1. Bg6+ Kxc6 2. Qh5#; 1. ...
Ke6 2. Qc8+ Qd7 3. Bf5+

(double attack: chasing)

- 12) 1. ... Bxf2+ 2. Kxf2 Nxe4+; 2.
Qxf2 Nd3+ (double attack:
luring)

51 Double attack / Clearing: A

- 1) 1. Nxc6 Rxc6 2. Qd4+
- 2) 1. Qa8+ Kh7 2. Nf3
- 3) 1. ... Nxf3+ 2. gxf3 Qd4+
- 4) 1. g5 Bg7 2. Qh3+; 1. Qh3+?
Kg8 2. g5 Bf5
- 5) 1. Bxd5 Nxd5 2. Nc6
- 6) 1. Qxf5 Rxf5 2. Ne6+

- 7) 1. ... Qxf3+ 2. Bxf3 Ne3+
- 8) 1. ... Nf5 2. Rf3 Qb8+; 1. ...
Qb8? 2. Be5
- 9) 1. Rxc3 bxc3 2. g4
- 10) 1. e6 fxe6 2. Qc3; 1. Qc3? Bb4
- 11) 1. ... Bb3 2. Re1 Nc4
- 12) 1. ... b3 2. axb3 Nb4

52 Double attack / X-ray: A

- 1) 1. Qxd6 Rxd6 2. Bb4
- 2) 1. e4 dxe4 2. Bg4; 1. Bg4?
Qb1+
- 3) 1. ... d4 2. Bxd4 Bd5+
- 4) 1. ... f5 2. Nd2 Bb4
- 5) 1. ... Re5+ 2. Kc4 Be2+; 2. Kc6
Bd7#
- 6) 1. ... Rb1 2. Qxb1 Qh1+
- 7) 1. ... Nc6+ 2. Bxc6 Rb1+

- 8) 1. ... Nf5 2. exf5 Rh2+
- 9) 1. ... g5 2. Qxg5 Be7 and 3. ...
Bxh4
- 10) 1. Qb8+ Kf5 2. Qf8+ Kg4 3.
Qg8+
- 11) 1. Qe3 Qb8 2. Re1; 2. ... Bxd5
3. Bxd5+ Nf7 4. Rf1
- 12) 1. ... Bc5 2. Bxc5 Qxc4+

54 Endgame / Queen against pawn: A

- 1) 1. Qe1 (the queen occupies the
promotion square)
- 2) 1. ... Kc2 (1/2-1/2 because of the
rook's pawn; the white king is
too far away)
- 3) 1. Kg3 (1. Qxd2 stalemate)
- 4) 1. Qa6 (the queen occupies the
promotion square)
- 5) 1. Qe5 Kb3 2. Kf5 c2 3. Qa1
(the queen occupies the
promotion square or the pawn
does not come on the second
rank)
- 6) 1. Kb3 c1Q 2. Qh7+ Ka1 3.

Qa7+ (the white king is close
enough to the pawn)

- 7) Drawing
- 8) Drawing
- 9) 1. Kd3 (the white king is close
enough to the pawn)
- 10) 1. Kb4 Kb2 2. Ka4+ (the white
king is close enough to the
pawn)
- 11) 1. Kf4 f1Q+ 2. Kg3 (the white
king is close enough to the
pawn)
- 12) 1. Qb3 or 1. Qa1+ (preventing
the black king to occupy the

corner)

55 *Test / Mix: I*

- 1) 1. Nc7 Qxd6 2. Nxe8+ (double attack: chasing)
- 2) 1. Ne8 Rdx8 2. Qf6+ (interfering and square clearance)
- 3) 1. Bc5 Qxe2 2. Rxe7+
- 4) 1. Rh8+ Kxh8 2. Bf7# (discovered check: luring)
- 5) 1. ... Rh2+ 2. Kxh2 Nf3+ (magnet)
- 6) 1. ... Ra2+ 2. Rd2 Qd7 (pacing the front piece)
- 7) 1. d7 Rd8 2. Qa5 (double attack: chasing)
- 8) 1. ... Qxb3 2. axb3 Nf3+ (double attack: eliminating the defence)
- 9) 1. Qh6 gxh6 2. Nxh6# (mate door access)
- 10) 1. Qd5 Nc6 2. Qxc6 (double attack: luring)
- 11) 1. Bh6 winning the exchange; 1. ... Re8 2. Bxa6 (king's attack)
- 12) 1. Rg7!; 1. Rg8+? Qxg8 2. Bxg8 Rxg8 and Black wins. (7th rank)

56 *Test / Mix: J*

- 1) 1. ... Nxd5 2. exd5 Qh4+ (double attack: clearing)
- 2) 1. ... Be5! 2. Qxe5 Nf3+; 2. Qg5 Nf3+ (double attack: luring/chasing)
- 3) 1. ... Rf1+ 2. Kxf1 Qf5+; 2. Rxf1 Qxe3+ (magnet/luring away + mate)
- 4) 1. Rh6 gxh6 2. Qf6# (mate by access)
- 5) 1. ... Qf1+ 2. Rxf1 Rxf1# (mate thanks to x-ray protection)
- 6) 1. Nxc5 Qxc5 2. Qe4 (double attack: clearing)
- 7) 1. ... Nf3+ 2. Bxf3 Be5# (blocking)
- 8) 1. Rc8 Qxc8 2. Ne7+ (double attack: luring)
- 9) 1. Ne7+ Qxe7 2. Qg4+; 1. Qg4+ Kf8 (double attack: clearing/eliminating the defence)
- 10) 1. ... Re1 2. Qxe1 Qg4#; 2. Re8+ Qxe8+ (luring away + mate)
- 11) 1. ... Rxe3 2. Qxe3 Bd4
- 12) 1. Nf6+ Kh8 2. Qg5 with the threat 3. Qxh6+; on 2. ... hxg5 follows 3. Rh3# (king's attack: access)