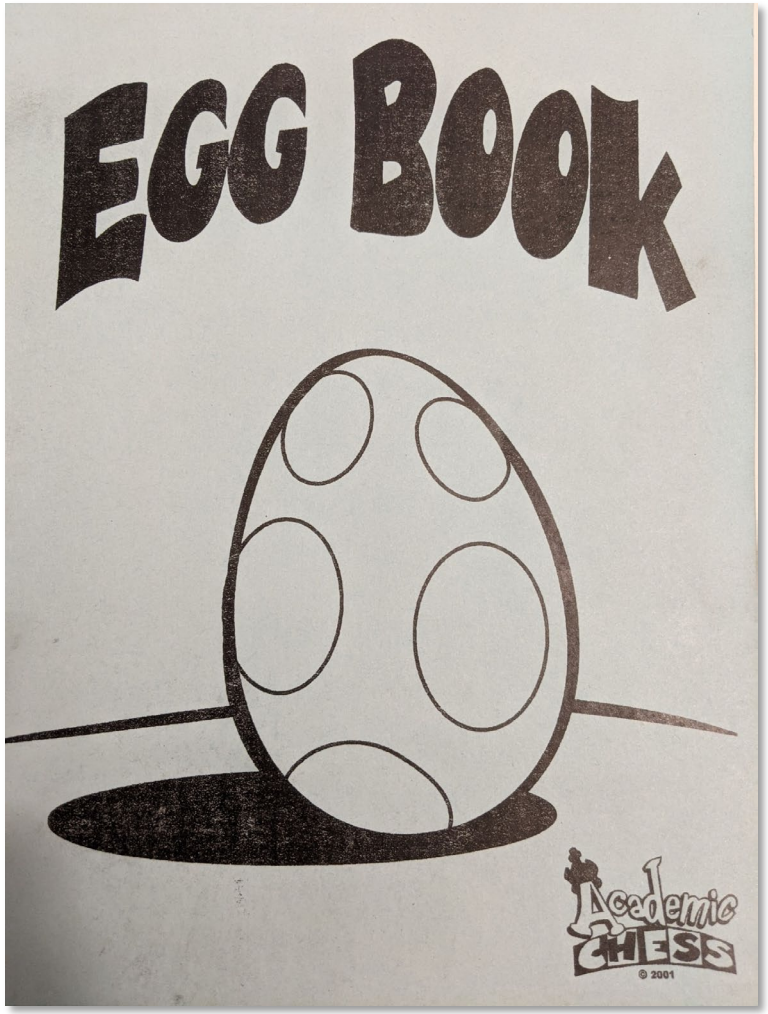
Revamping a Youth Chess Workbook Using LaTeX Packages

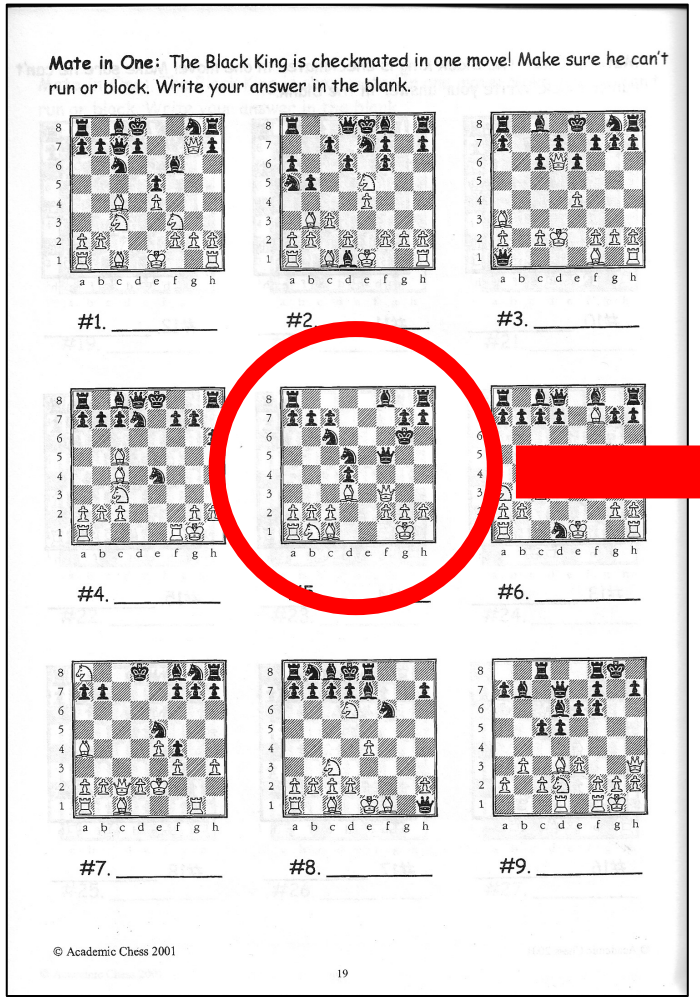
Jennifer Claudio

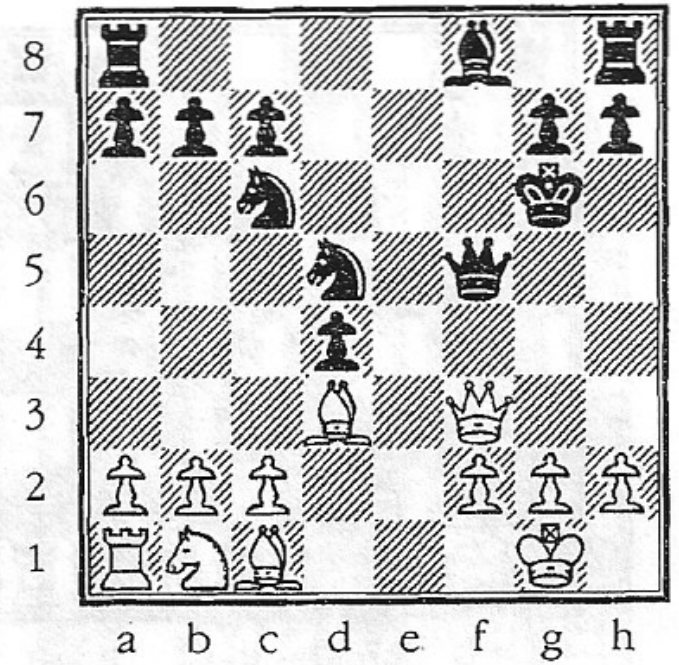
TUG Online | July 2022 | San Jose, California

Academic CHESS

SAN JOSE | 2005



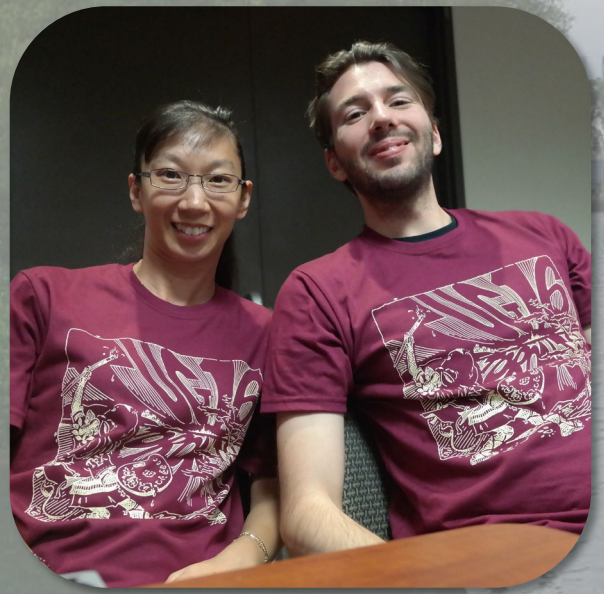




#5. _____

"If only these books looked cleaner..."

SAN JOSE | 2005



TORONTO| 2016

TORONTO| 2016

TEXmate 2: User's manual

Federico Garcia

July 20, 2006

Contents

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2 Basic usage **3**

2.1 A short game 3

2.2 Game title 3

2.3 Basic Annotations 4

2.4 Diagrams 5

AUGUST | 2021

```
\documentclass{article}

\usepackage[english]{babel}
\usepackage[utf8x]{inputenc}
\usepackage{texmate}
\usepackage{chessboard}
\usepackage{fullpage}
\usepackage{graphicx}
%\usepackage[thinlines]{easytable}
%\usepackage{caption, subcaption}
\usepackage[margin=0.5in]{geometry}
%\usepackage[showframe]{geometry}

\title{Mate in One}
\author{}
\date{}

\begin{document}

\whitename{Dubois}
\blackname{Steinitz}
\chessevent{London 1862}
\ECO{C50}
\chessopening{Giucco Pianissimo}
\makegametitle
|1 e4 e5 Nf3 Nc6 Bc4 Bc5 d3 Nf6 Bg5?! [Nc3]
d6 O-O?! h6 Bh4 g5 Bg3 h5! Nxg5 h4! Nxf7 hxg3!!
\toD{hxg3!!} Nxd8 [Nxh8 Qe7! \threat<Qh7> Nf7 Bxf2+
Rxf2 gxf2+ Kxf2 Ng4+ Kg3 Qf6 Qf3 Qg7\BBetter] Bg4
Qe1 Nd4 Nc3\onlymove [h3 Ne2+ Kh1 Rxh3+ gxh3
Bf3\#] Nf3+! gxf3 Bxf3 \toD{Bxf3} \resigns|
\begin{figure}[h]
\makediagrams
\end{figure}
```

□ **Dubois** — London 1862
■ **Steinitz** — Giucco Pianissimo — **C50**

1. e4 e5 2. ♘f3 ♘c6 3. ♗c4 ♗c5 4. d3 ♘f6 5. ♗g5?![5. ♘c3]**5...d6 6. 0–0?! h6 7. ♗h4 g5 8. ♗g3 h5! 9. ♘xg5 h4! 10. ♘xf7 hxg3!!** (*D*) **11. ♘xd8**[11. ♘xh8 ♕e7! △♕h7 12. ♘f7 ♗×f2+ Rxf2 13. gxf2+ ♔×f2 14. ♘g4+ ♔g3 15. ♕f6 ♕f3 16. ♕g7–+]**11...♗g4♕e1 12. ♘d4 ♘c3□**[12...h3 13. ♘e2+ ♔h1 14. ♖xh3+ gxh3♗f3#]**13. ♘f3+! gxf3 14. ♗×f3** (*D*)
1 : 0

Steinitz

Dubois
10...hxg3!!

Steinitz

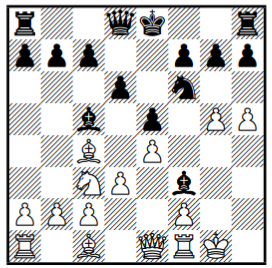
Dubois
14. ♗×f3

Example: Chess with TeXmate

1 Game with Diagram of Final Board State

□	**Dubois**	London 1862
■	**Steinitz**	Giucco Pianissimo – **C50**

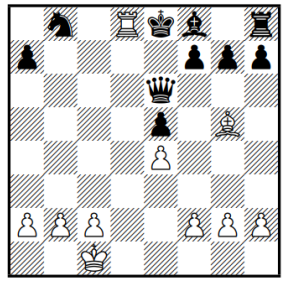
1. e4 e5 2. ♘f3 ♘c6 3. ♗c4 ♗c5 4. 0–0 d6 5. d3 ♘f6 6. ♗g5h6 ♗h4 7. g5 ♗g3 8. h5 ♘×g5 9. h4 ♘×f7 10. h×g3♘×d8 ♗g4 11. ♕e1 ♘d4 12. ♘c3 ♘f3+ 13. g×f3 ♗×f3 **0 : 1**



1 Opera House Game

□	**Paul Morphy**	Paris 1858
■	**Duke of Brunswick and Count Isouard**	Philidor Defence – **C41**

1. e4 e5 2. ♘f3 d6 3. d4 ♗g4 4. d×e5 g×f3 5. ♕×f3 d×e5 6. ♗c4 ♘f6 7. ♕b3 ♕e7 8. ♘c3 c6 9. ♗g5 b5 10. ♘×b5! c×b5 11. ♗×b5 ♘bd7 12. 0–0–0 ♖d8 13. ♖×d7 ♖×d7 14. ♖d1 ♕e6 15. ♗×d7+ ♘×d7 16. ♕b8+ ♘×b8 17. ♖d8



Example: Chess with TeXmate

```
\section{Opera House Game}
        \whitename{Paul Morphy}
        \blackname{Duke of Brunswick and Count Isouard}
        \chessevent{Paris 1858}
        \ECO{C41}
        \chessopening{Philidor Defence}
\makegametitle
|1 e4 e5 Nf3 d6 d4 Bg4 dxe5 gxf3 Qxf3 dxe5 Bc4 Nf6 Qb3 Qe7 Nc3 c6 Bg5 b5 Nxb5! cxb5 Bxb5 Nbd7 0-0-0 Rd8 Rxd7 Rxd7 Rd1 Qe6 Bxd7+ Nxd7 Qb8+ Nxb8 Rd8#|

\begin{figure}[h]
\centering
\showboard
\end{figure}
```

TeXMate (Federico Garcia)

- Excellent documentation
- **TeXMate2** uses the **skak** chess engine to follow moves
- Does more than what I needed for this purpose

Tour of a Few Other Chess Packages

- skak (Torben Hoffman)
- chessfss, chessboard (Ulrike Fischer)
- board generator (Martin Thoma)

Chess Notations

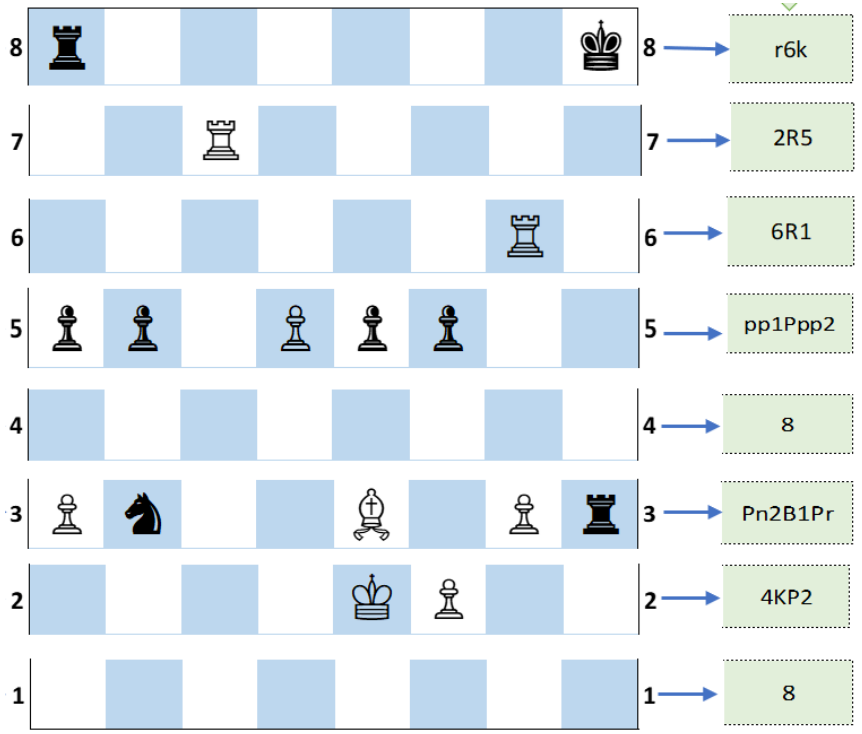
Descriptive Notation

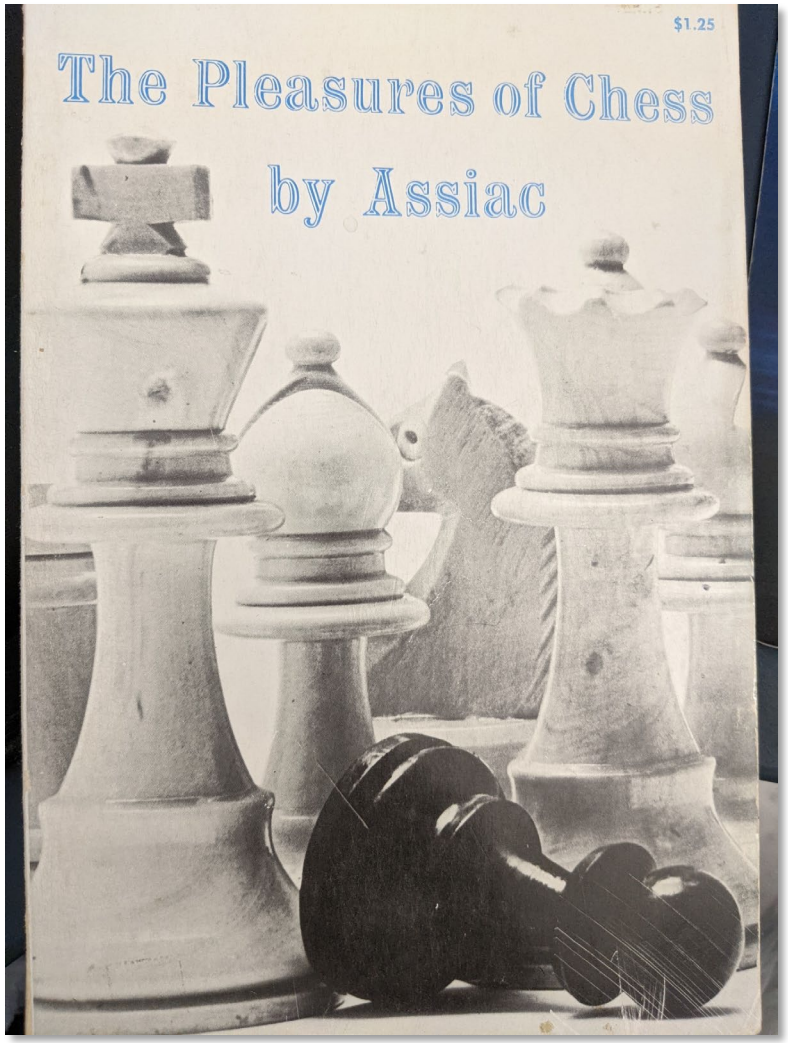
QR1 QR8	QN1 QN8	QB1 QB8	Q1 Q8	K1 K8	KB1 KB8	KN1 KN8	KR1 KR8
QR2 QR7	QN2 QN7	QB2 QB7	Q2 Q7	K2 K7	KB2 KB7	KN2 KN7	KR2 KR7
QR3 QR6	QN3 QN6	QB3 QB6	Q3 Q6	K3 K6	KB3 KB6	KN3 KN6	KR3 KR6
QR4 QR5	QN4 QN5	QB4 QB5	Q4 Q5	K4 K5	KB4 KB5	KN4 KN5	KR4 KR5
QR5 QR4	QN5 QN4	QB5 QB4	Q5 Q4	K5 K4	KB5 KB4	KN5 KN4	KR5 KR4
QR6 QR3	QN6 QN3	QB6 QB3	Q6 Q3	K6 K3	KB6 KB3	KN6 KN3	KR6 KR3
QR7 QR2	QN7 QN2	QB7 QB2	Q7 Q2	K7 K2	KB7 KB2	KN7 KN2	KR7 KR2
QR8 QR1	QN8 QN1	QB8 QB1	Q8 Q1	K8 K1	KB8 KB1	KN8 KN1	KR8 KR1

Algebraic (SAN, LAN)

a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

Forsyth-Edwards (FEN)

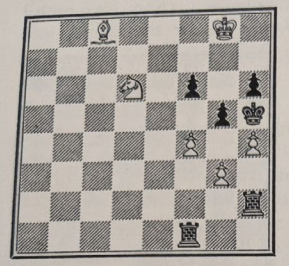




The PLEASURES of CHESS

PRESIDIO SERVICE CLUB
San Francisco, Calif.

The only thing Black can do is to try an escape by, say, R—K4, but the White Bishop, by sacrificing himself, retrieves the fugitive Rook, and so contrives the end:



5. B—B5 ch R×B
6. Kt—Kt7!!!

If there is one thing we can learn from this pretty study it is this: that Rooks should work as a team and should beware of being cut off from one another.

Here is a famous little game to exemplify the point. The winner is the great Morphy, and his opponents were the Duke of Brunswick and Count Isouard, playing in consultation. The game was played in 1858 in the Duke's box in the Paris Opera House during a performance of *The Barber of Seville*:

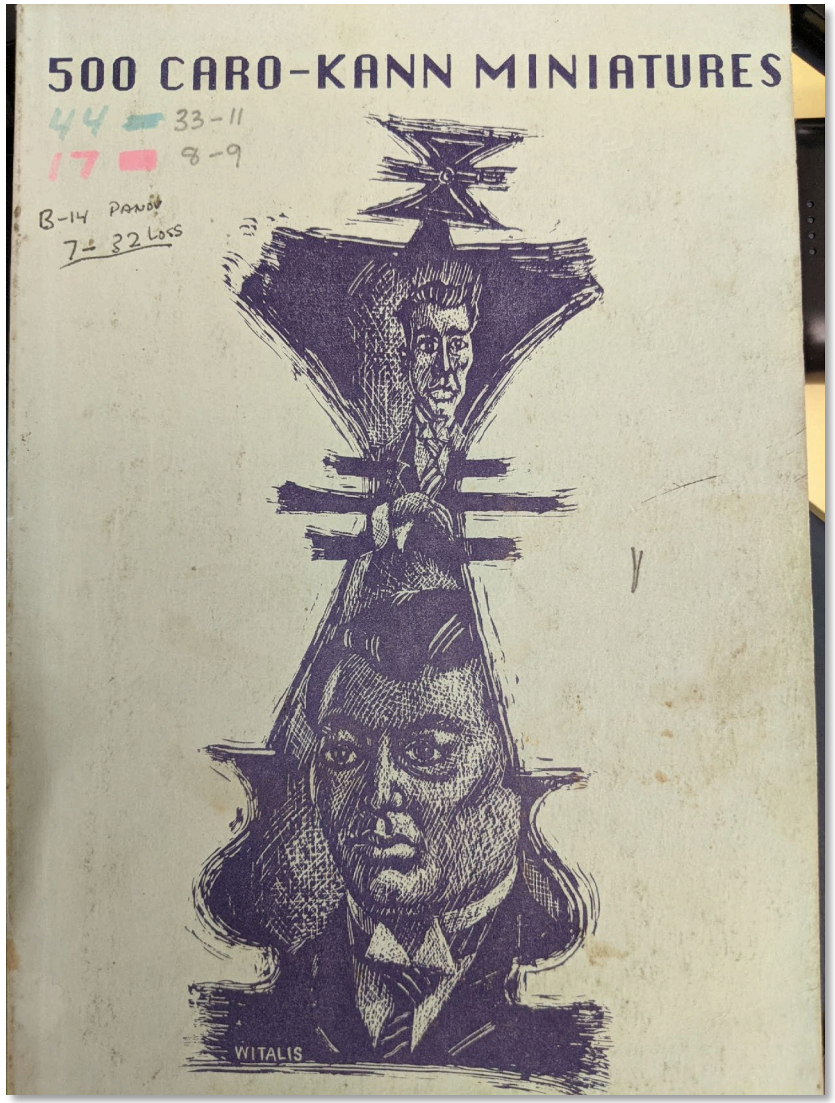
1.	P—K4	P—K4	10.	Kt×KtP!	P×Kt
2.	Kt—KB3	P—Q3	11.	B×Kt P ch	QKt—Q2
3.	P—Q4	B—Kt5?	12.	O—O—O	R—Q1
4.	P×P	B×Kt	13.	R×Kt!	R×R
5.	Q×B	P×P	14.	R—Q1	Q—K3
6.	B—QB4	Kt—KB3	15.	B×R ch	Kt×B
7.	Q—QKt3	Q—K2	16.	Q—Kt8 ch!!	Kt×Q
8.	Kt—QB3	P—QB3	17.	R—Q8	Mate
9.	B—KKt5	P—QKt4?			

Perhaps the Duke and the Count could plead the extenuating circumstance of being disturbed by Rossini's music. Morphy, at any rate, provided a spectacle truly in the style of Grand Opera.

How magnificently Rooks can fight each other is beautifully illustrated in a study by Saavedra (1895), probably one of the most instructive studies in Chess literature. (See next page.)

White is to move and win. He pushes the Pawn, of course, and it seems hopeless for the Rook to stop it. Yet a Rook can command powerful resources as we shall soon see. Black obviously plays

(1960)



181.
BILL NEBBERT - JIM HOLWELL, Correspondence 1971 B13/
1 e4 c6 2 d4 d5 3 exd5 cxd5 4 Nc3 Nf6 [4...Bf5] 5 Bg5 Nc6 6 Bxf6 Q
7 Bg5 Bf5 8 Nf3 Qd6 9 O-O O-O-O 10 Re1 e6 11 Nh4 Bg6 12
Nxd4 13 Qxf6 Nxc2 14 Nxg6 Bg7 15 Ne7+ Kb8 16 Qxg7 Qxe7
Nxd5! Qc5 18 Qe5+ Kc8 19 Rac1 [threatening 20 Ne7+ Qxe7
Rxc2+] 1-0

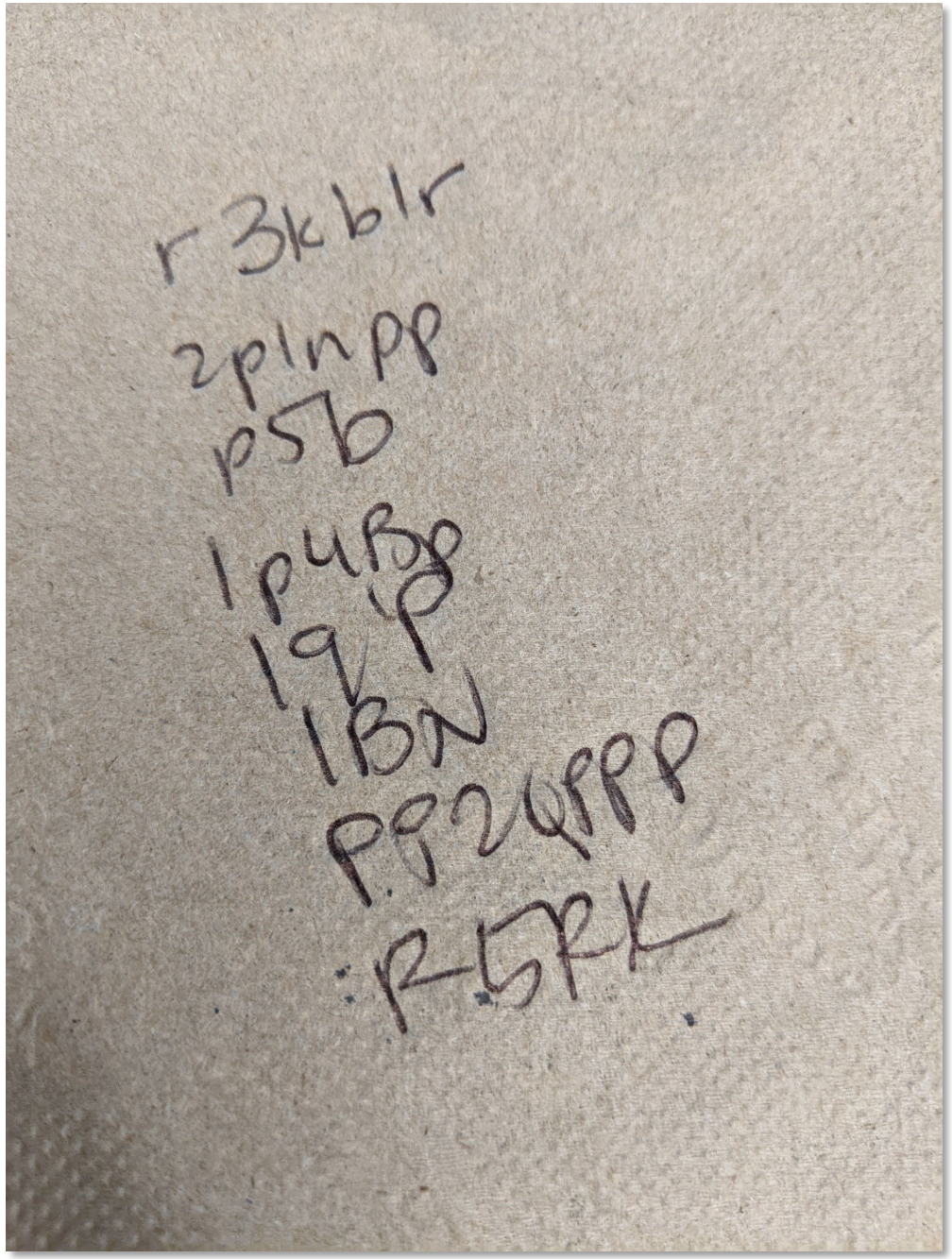
182.
STEWART - J. CAPABLANCA, Philadelphia 1926 B13/
1 e4 c6 2 d4 d5 3 exd5 cxd5 4 Nc3 Nc6 5 Nf3 Bg4 6 Be2 e6 7 Bf4 Bb4
h3 Bxf3 9 Bxf3 Nf6 10 O-O Bxc3 11 bxc3 O-O 12 Qb1 Na5 13 Qb4 R
14 Rab1 Rc6 15 Be5 b6 16 g4 Qc8 17 Qe7 Rxc3 18 Bg2 Nc6 19 Q
Ne8 0-1

183.
DURAO - JUAN BELLON, Torremolinos 1978 B13/1
1 e4 c6 2 d4 d5 3 exd5 cxd5 4 Nf3 g6 5 Bd3 Bg4 6 c3 Bg7 7 Qb3 Bxf3
Qxb7 Nd7 9 gxf3 Ngf6 10 Bf4 O-O 11 Bc7 Qe8 12 f4 Nb6 13 Be5 N
14 a4 f6 15 a5 fxe5 16 axb6 Nxf4 17 Bf1 axb6 18 Rxa8 Qxa8 19 Qx
Rxa8 20 Kd2 exd4 21 c4 Ra2 22 cxd5 Rxb2+ 23 Kc1 d3 0-1

184.
RICHARD LING - MACK HOWARD, Dayton 1981 B13/1
1 e4 c6 2 d4 d5 3 exd5 cxd5 4 c3 Bf5 5 Nf3 Nf6 6 Bf4 Nc6 7 Qb3 Qc8
Ne5 a6 9 Nd2 Nxe5 10 Bxe5 e6 11 c4 Qd7 12 Bd3 Bxd3 13 Qxd3 dxc
14 Nxc4 Bb4+ 15 Ke2 Nd5 16 a3 Be7 17 Rhc1 O-O 18 Ne3 Rac8 1
Nxd5 Qxd5 20 f3 Bg5 21 Rxc8 Rxc8 0-1

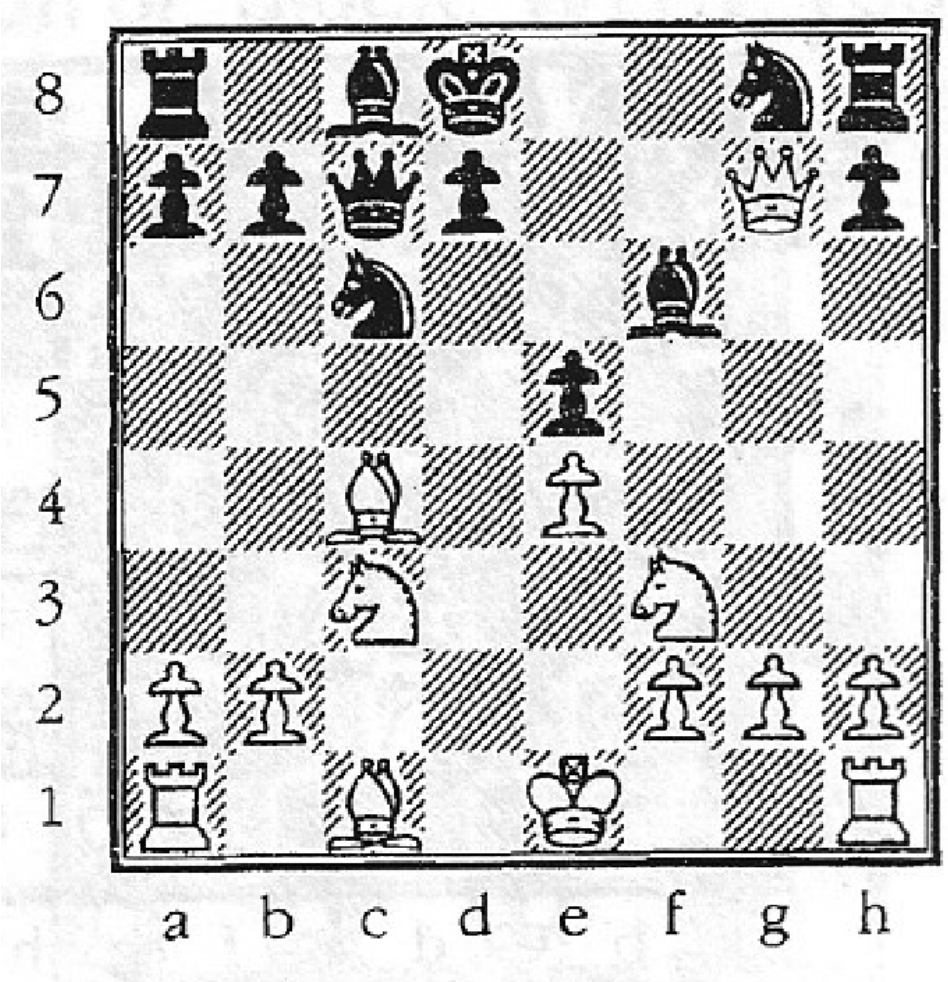
185.
REEVE - SCOONES, British Columbia 1980 B13/1.
1 e4 c6 2 d4 d5 3 exd5 cxd5 4 Bd3 g6 5 c3 Bg7 6 Bf4 Nc6 7 Nd2 Nh6
Ngf3 O-O 9 O-O f6 10 Re1 Re8 11 c4 Bf5 12 cxd5 Nb4 13 Bxf5 Nxf5 14
d6 e6 15 Qb3 Nd5 16 Bg3 Nxg3 17 hxg3 b6 18 Rxe6! Rxe6 19 Qxd5 1-
0

(1991)

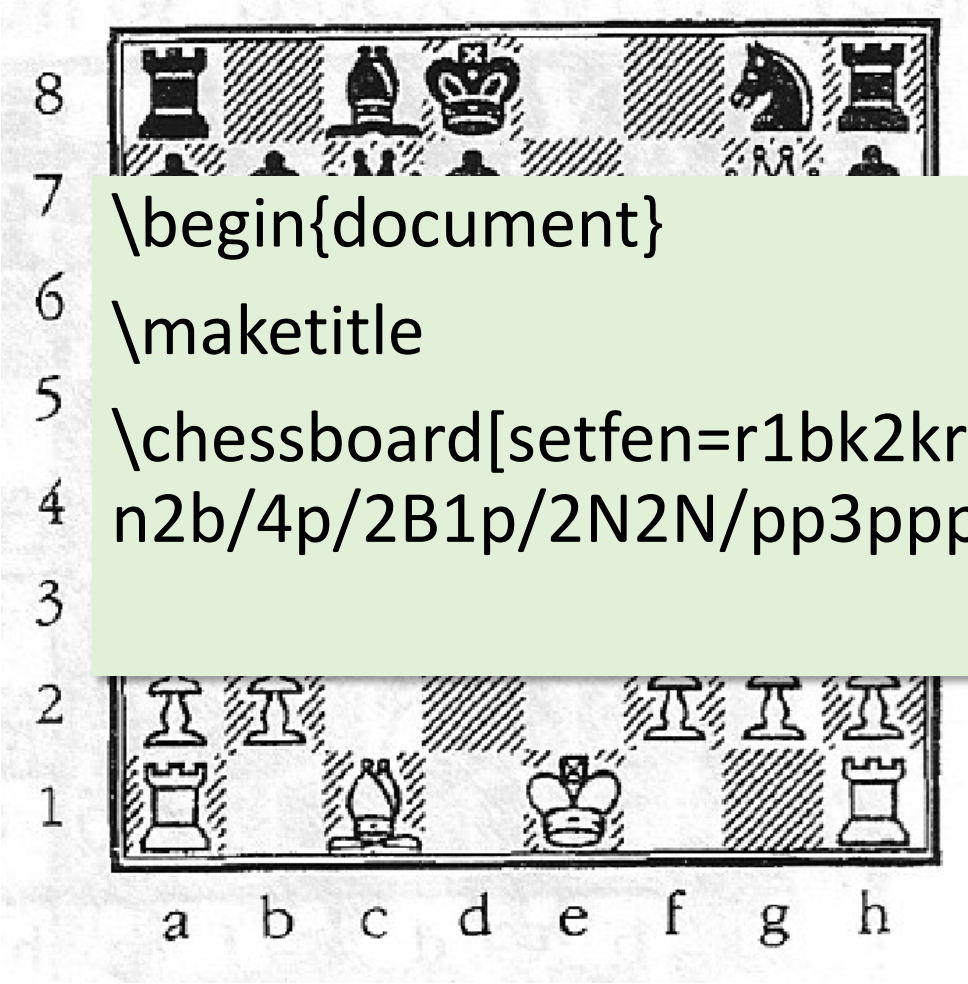


r3kblr
2pln pp
p5b
1p4Bp
1q1P
1BN
PP2QPPP
:R5RK

Begin with single figures from the workbook



Begin with single figures from the workbook



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n2b/4p/2B1p/2N2N/pp3ppp/R1B1K2R]
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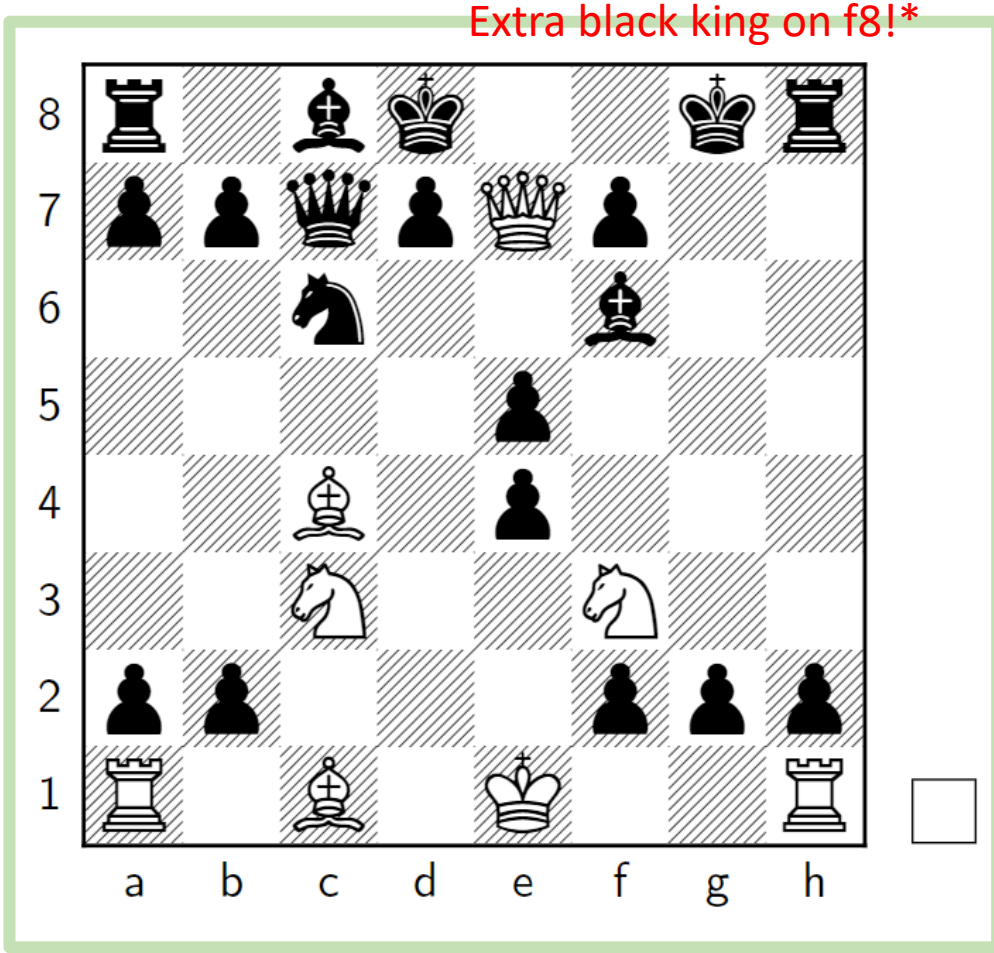
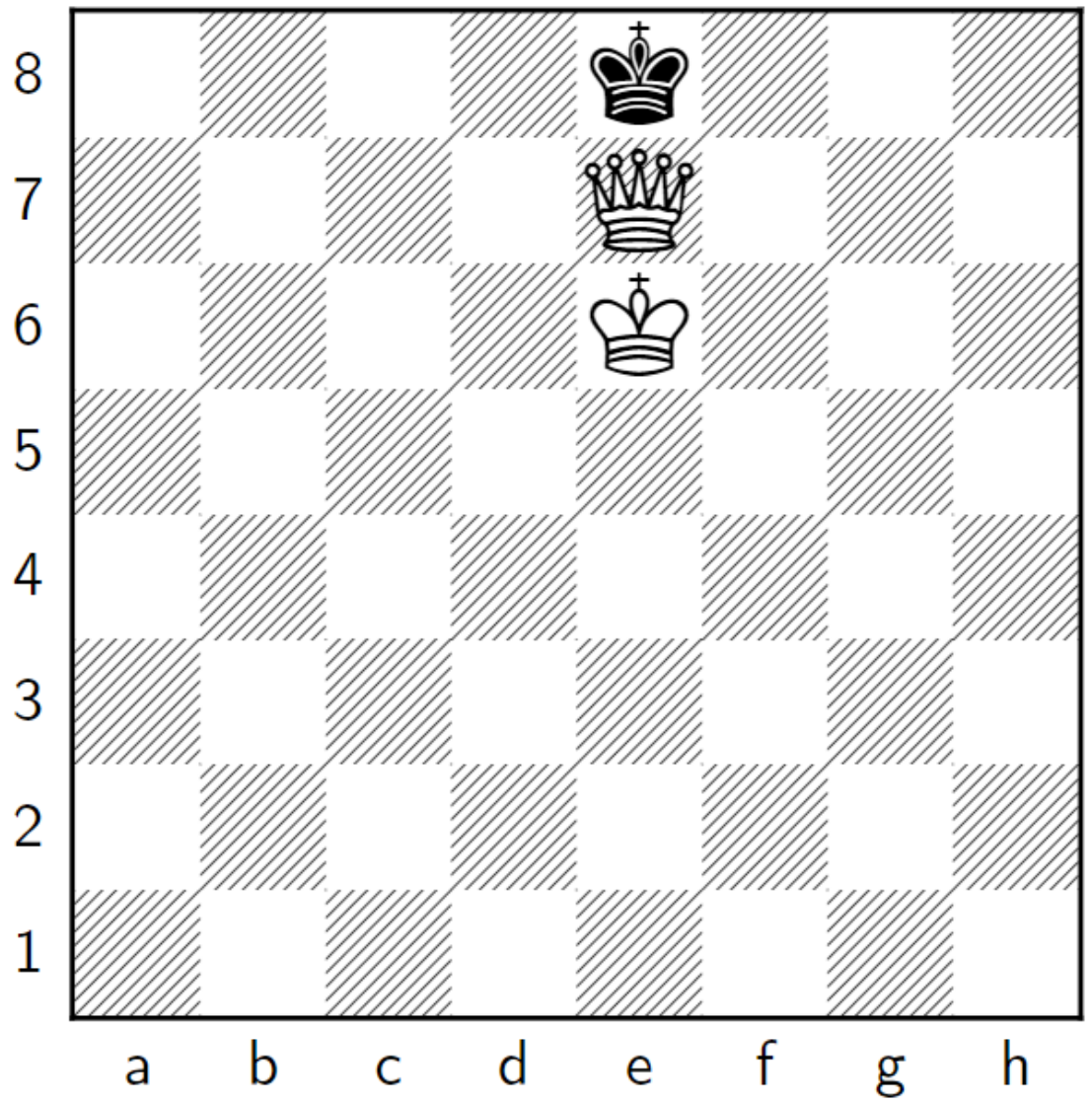
*Error in screen shot!
Extra black king on f8!*



Pawns on rank 2 should be white!



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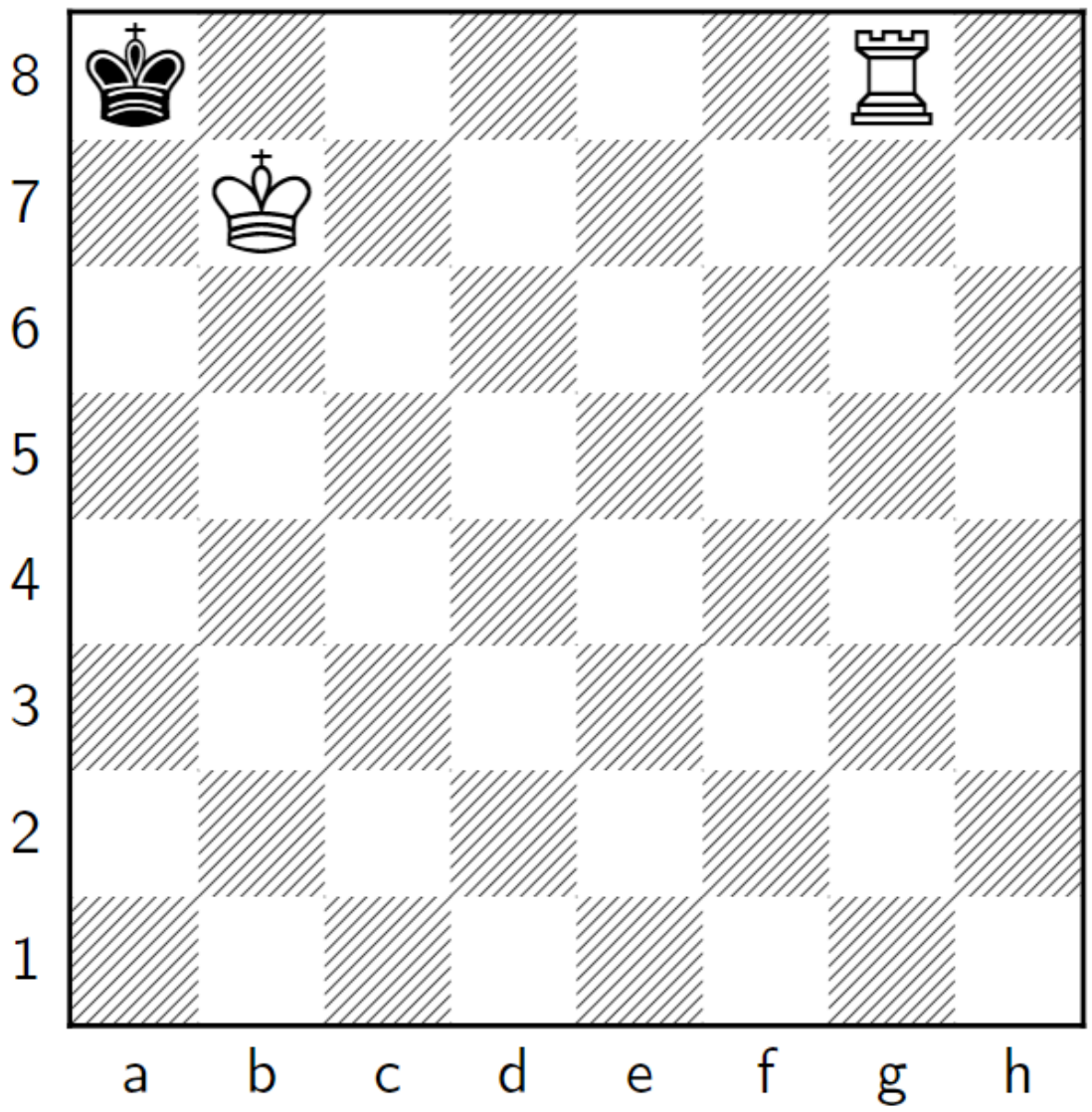

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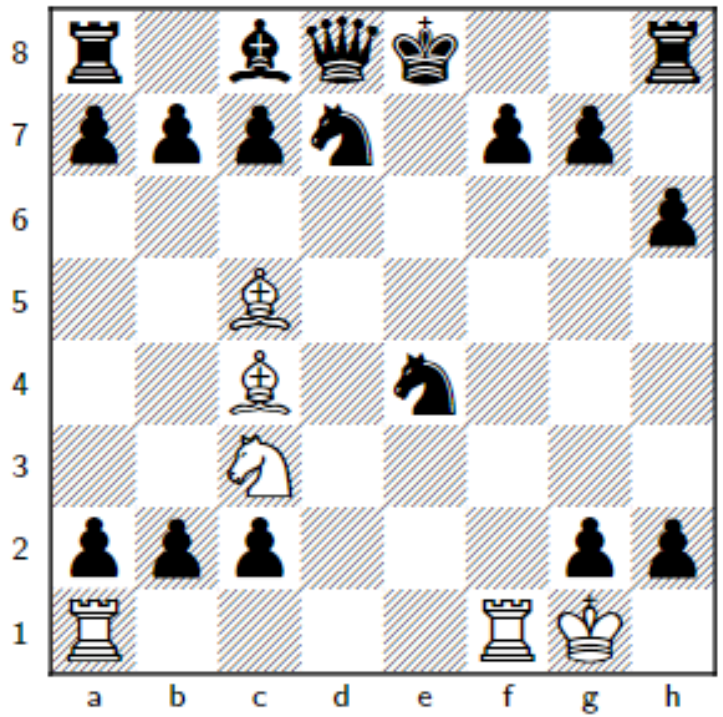
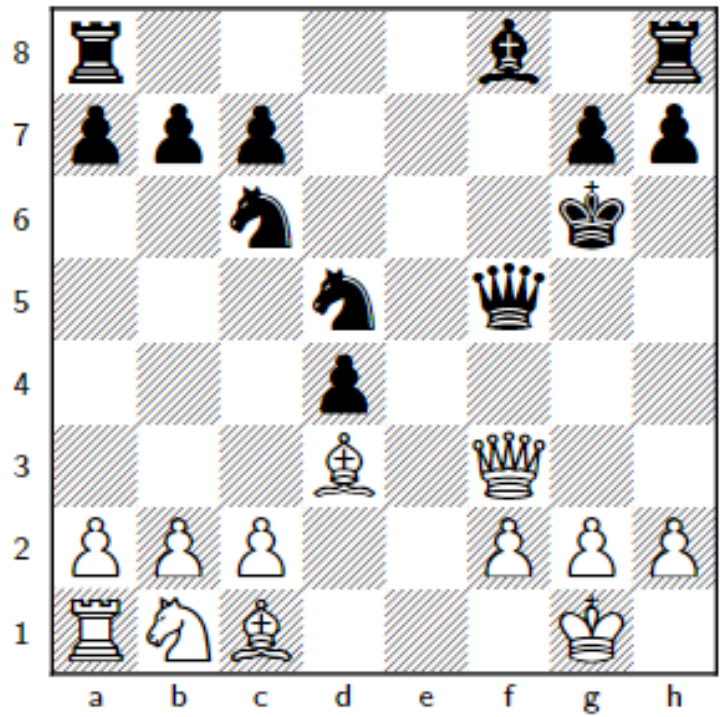
Positioning Multiple Figures on a Grid

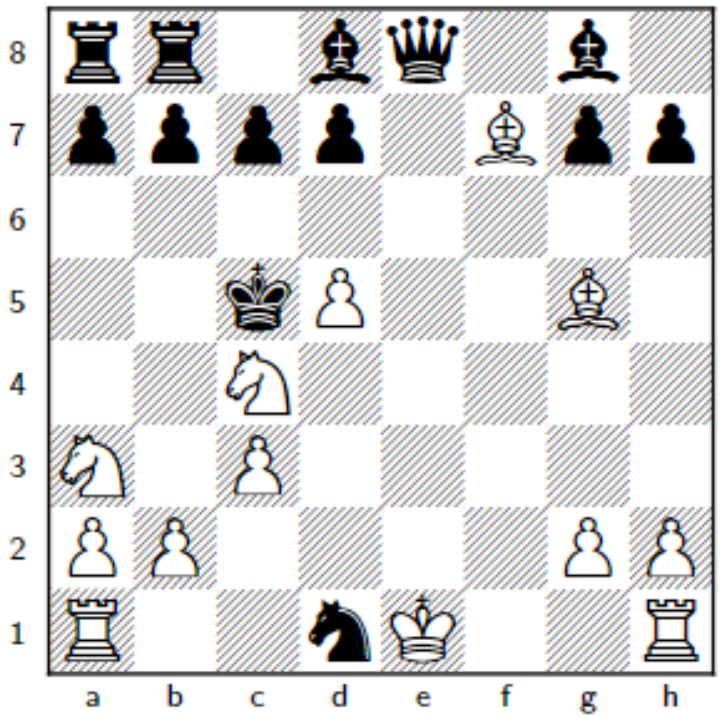
- Needed to create an organized grid of 3 x 3 figures
- …Other figure positioning would be needed for other pages, but I'm not compelled to do the rest of the book at this point…
- Stack Exchange and other web searches
- Barbara Beeton's message(s) about float placement



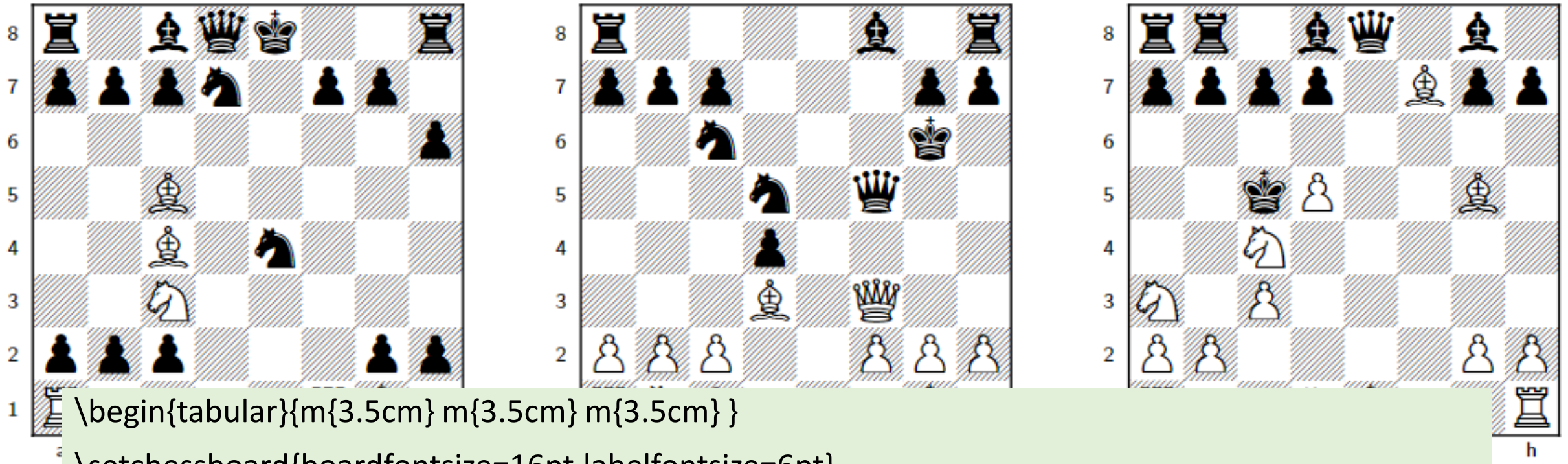
Exercise 4. _____



Exercise 5. _____



Exercise 6. _____



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\end{tabular}
```

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Source | Rich Text | Ω

ACI Egg Book.tex
figure1.tex
main.tex
mate in one page...

```
1  \documentclass{article}
2
3  \usepackage[english]{babel}
4  \usepackage[utf8x]{inputenc}
5  \usepackage{texmate}
6  \usepackage{chessboard}
7  \usepackage{fullpage}
8  \usepackage{graphicx}
9  %\usepackage[thinlines]{easytable}
10 %\usepackage{caption, subcaption}
11 \usepackage[margin=0.5in]{geometry}
12 %\usepackage[showframe]{geometry}
13
14 \title{Mate in One}
15 \author{}
16 \date{}
17
18 \begin{document}
19 \maketitle\vspace{-1cm}
20 \noindent \large Mate in One: In each of these exercises, it is White's turn to move.  The Black King will
   be checkmated in one move! Write your answer, using proper notation, in the blank space.
21
22 \begin{tabular}{m{3.5cm} m{3.5cm} m{3.5cm} }
23
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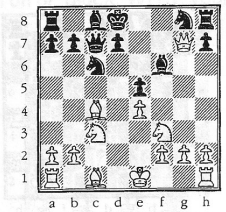
30
31 \end{tabular}
32
33 \begin{tabular}{p{5.5cm} p{5.5cm} p{5.5cm} }
34 \large Exercise 1. \textunderscore\textunderscore\textunderscore\
```

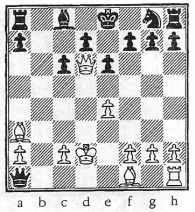
Before & After

Mate in One: The Black King is checkmated in one move! Make sure he can't run or block. Write your answer in the blank.

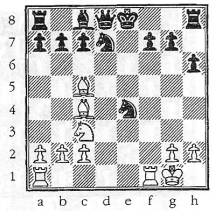


#1. _____

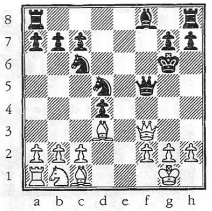
#2. _____



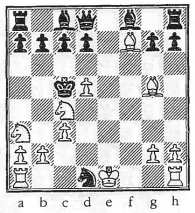
#3. _____



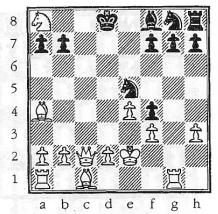
#4. _____



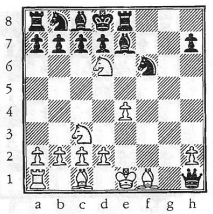
#5. _____



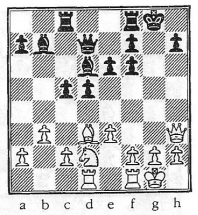
#6. _____



#7. _____



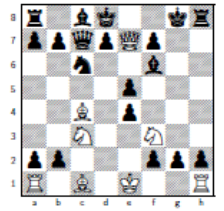
#8. _____



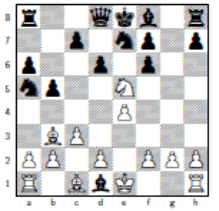
#9. _____

Mate in One

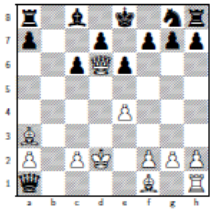
Mate in One: In each of these exercises, it is White's turn to move. The Black King will be checkmated in one move! Write your answer, using proper notation, in the blank space.



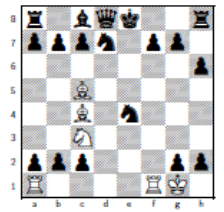
Exercise 1. _____



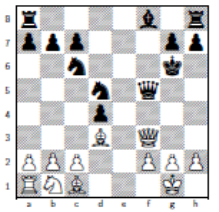
Exercise 2. _____



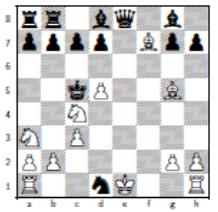
Exercise 3. _____



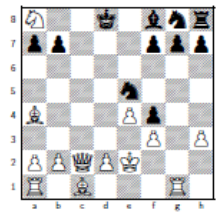
Exercise 4. _____



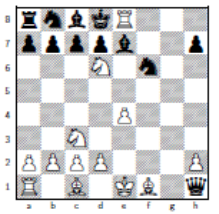
Exercise 5. _____



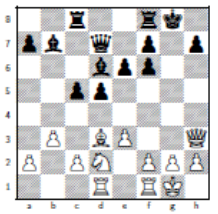
Exercise 6. _____



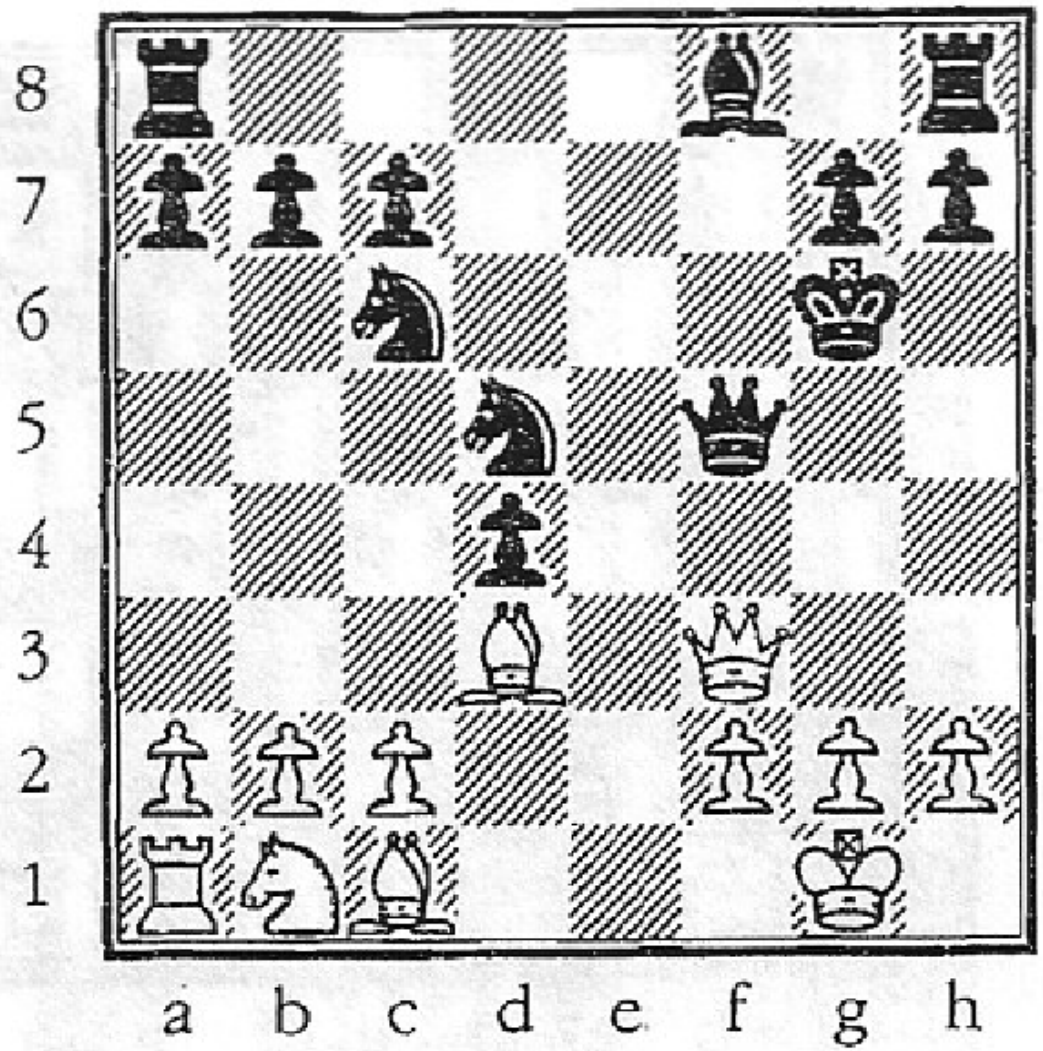
Exercise 7. _____



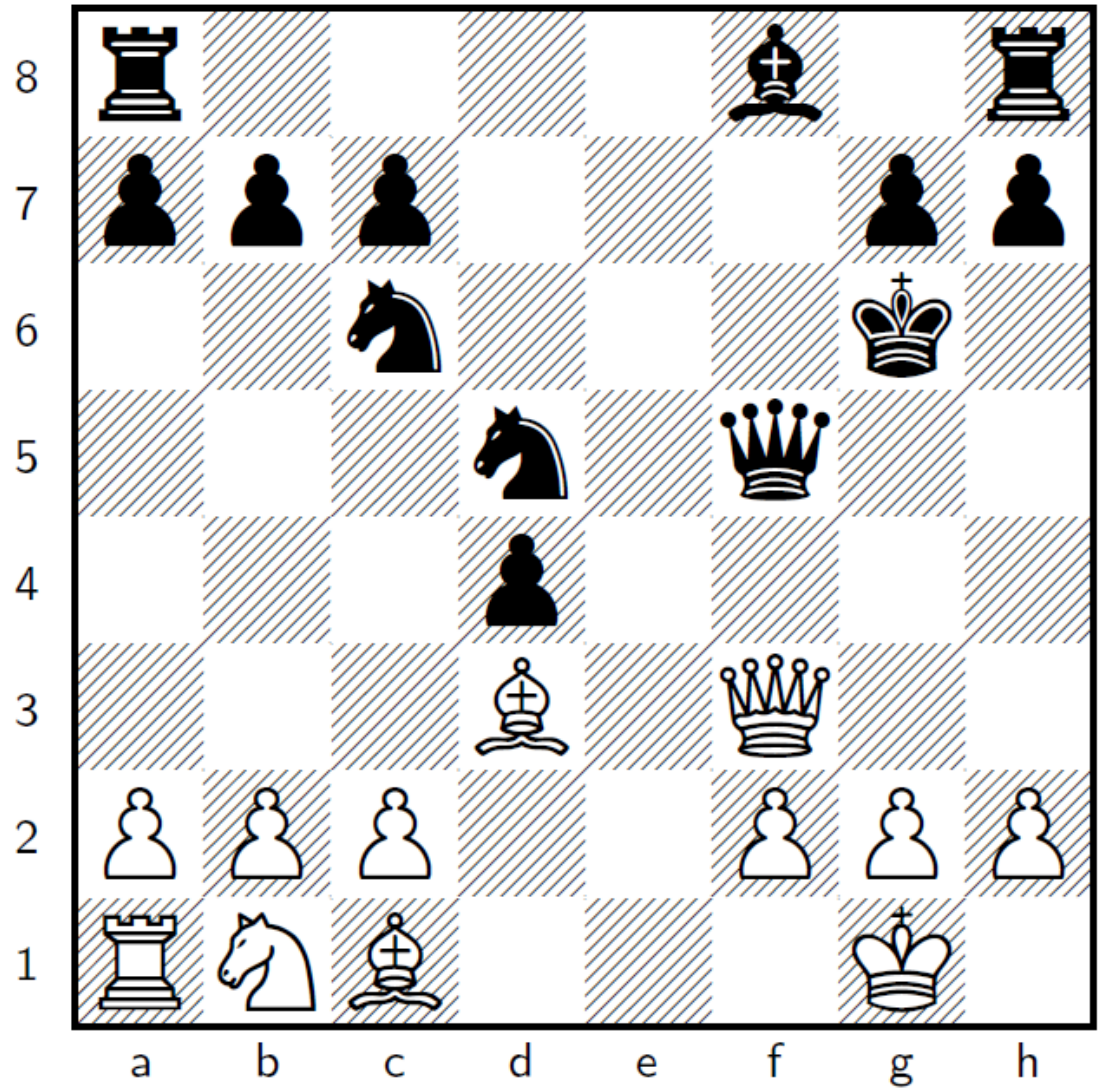
Exercise 8. _____



Exercise 9. _____



#5. _____



Exercise 5. _____

Thank you for your attention!
Comments welcomed!

claudioj@esuhsd.org

WonderMe Link :
https://app.wonder.me/?spaceId=a57fc864-79c1-4db3-b963-089f1d90297a

(Real time voice and video conversations in open breakout rooms)

Zulip Link:

https://tug.zulipchat.com/join/7c5laeaonlg4cssl3pyih7sr/

https://chat.zulip.com/help/getting-started-with-zulip

(Persistent chat and conversation that can extend beyond the conference days)