Visualisation in chess

games, excercises, training and teaching tools

Scientific background

- Visuo-spatial abilities (chess players ↔ non chess players)
- Mental transformation of pieces is analogical.
- Distance plays a role.
- Noticing threats

(novice players ↔ experienced players)

Types of visuo-spatial representations

Schematic (propositional)

- Mathematical problem solving
- Blindfold chess

Pictorial (imagery)

Chess and dyslexia

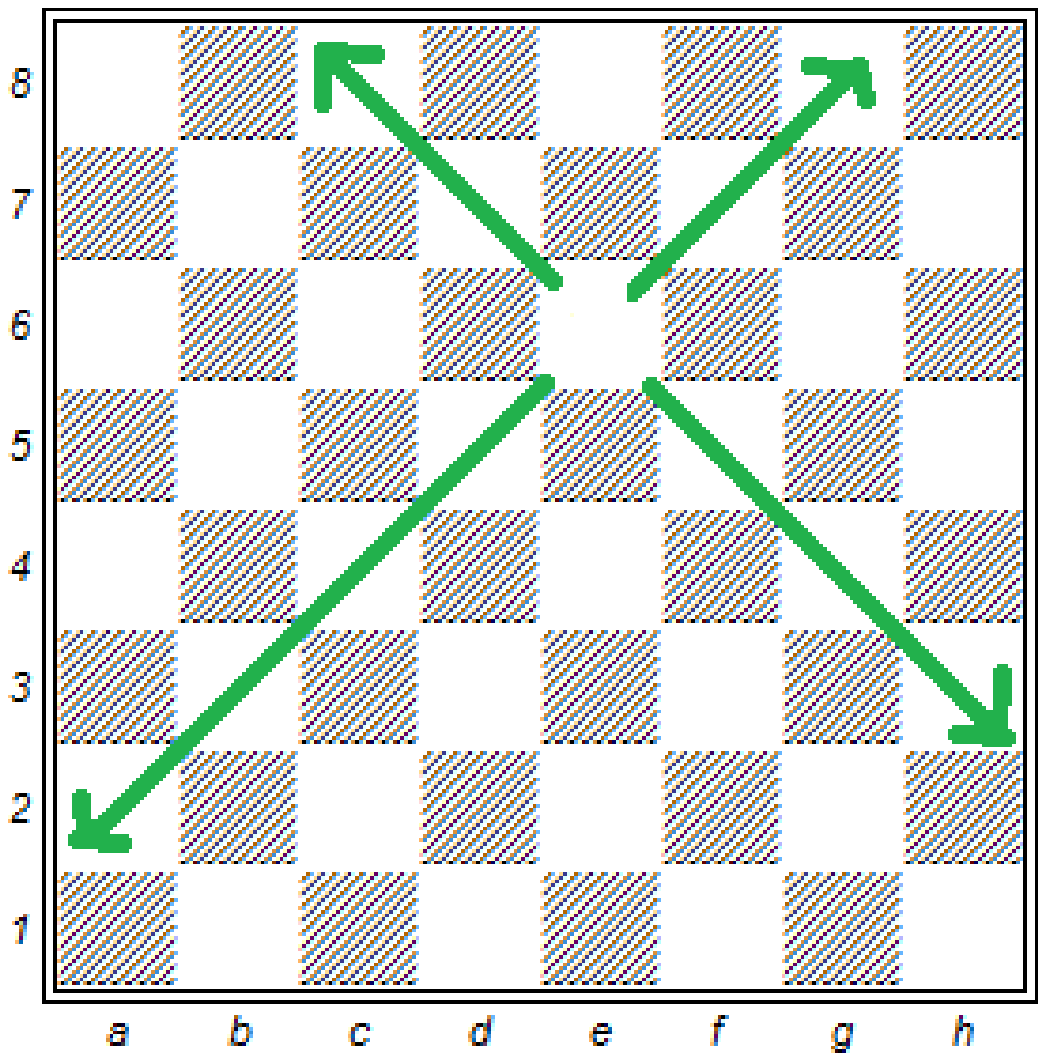
- Disorders in visuo-spatial attention have an impact on dyslexia.

- If these abilities can be trained with chess, it may help people who struggle with reading.

Types of excercises

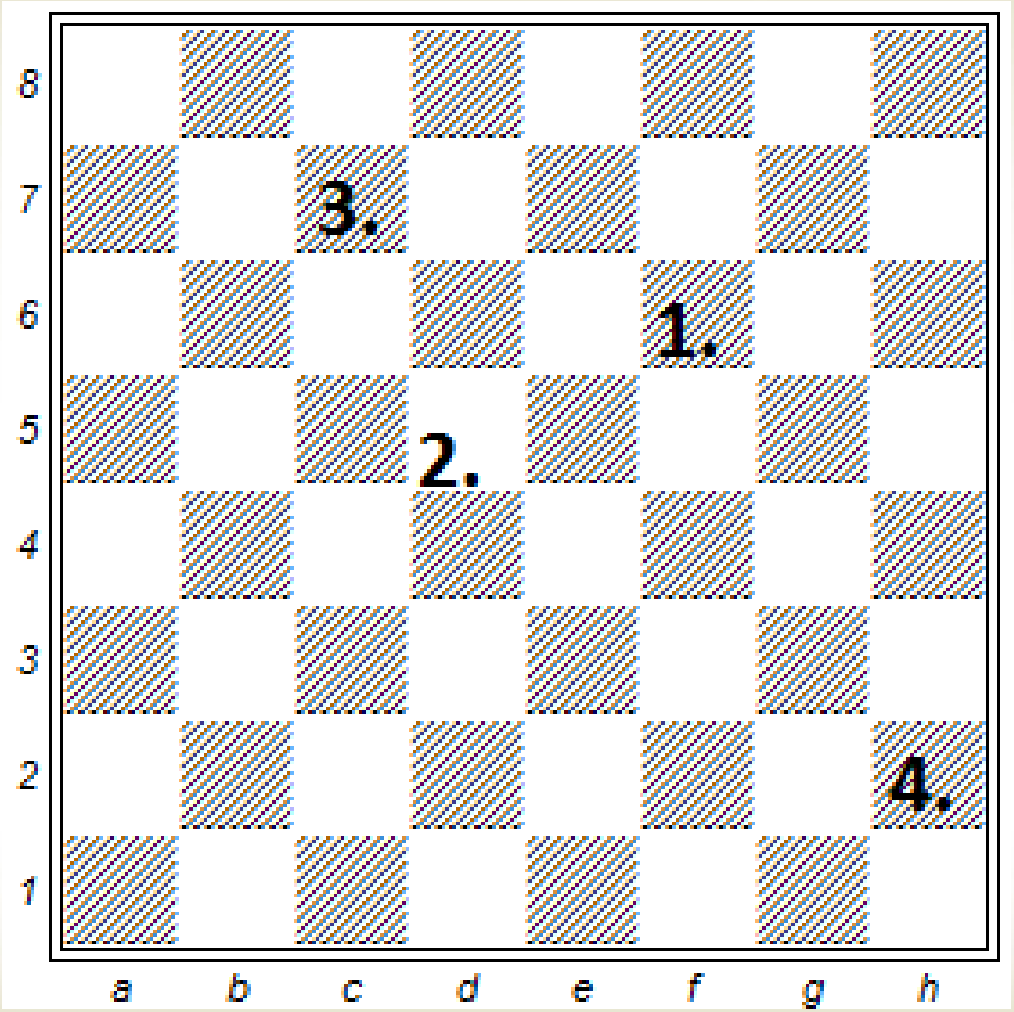
- Path
- Acting range
- Path + acting range
- Substitution or `complete the position´
- Blindfold play

Difference between novice and experienced players; format vs. content

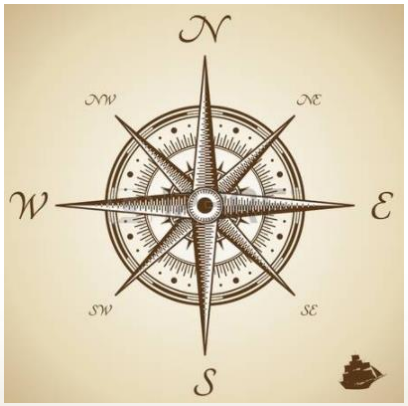


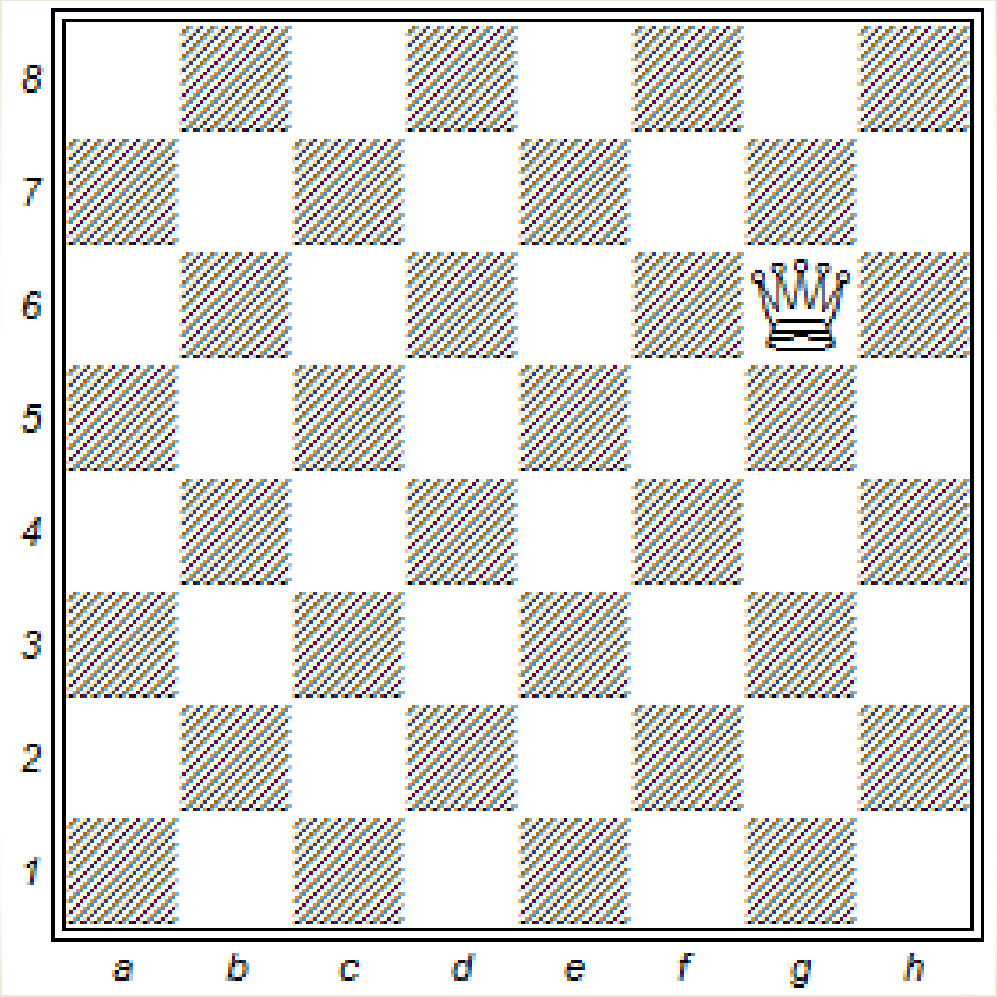
Excercises

Squares, colours



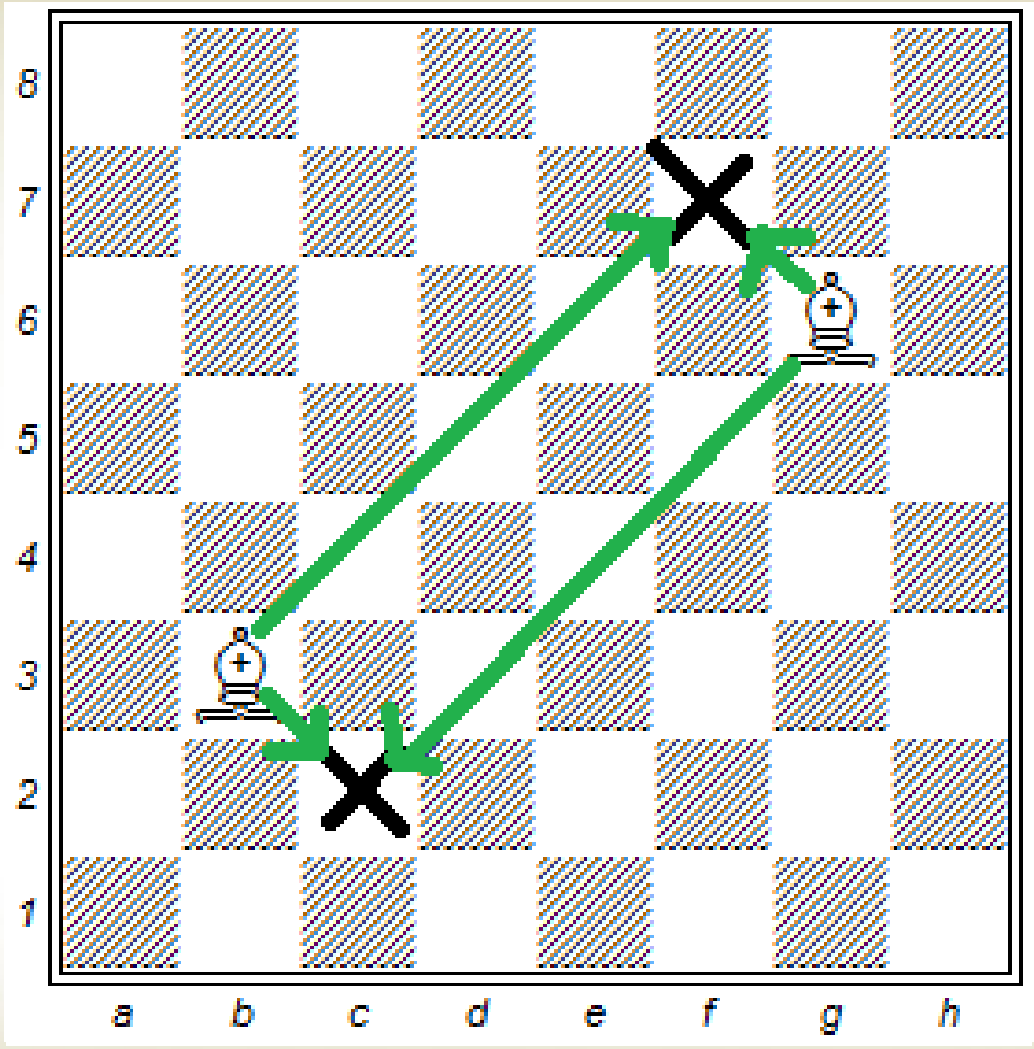
The Wandering Queen





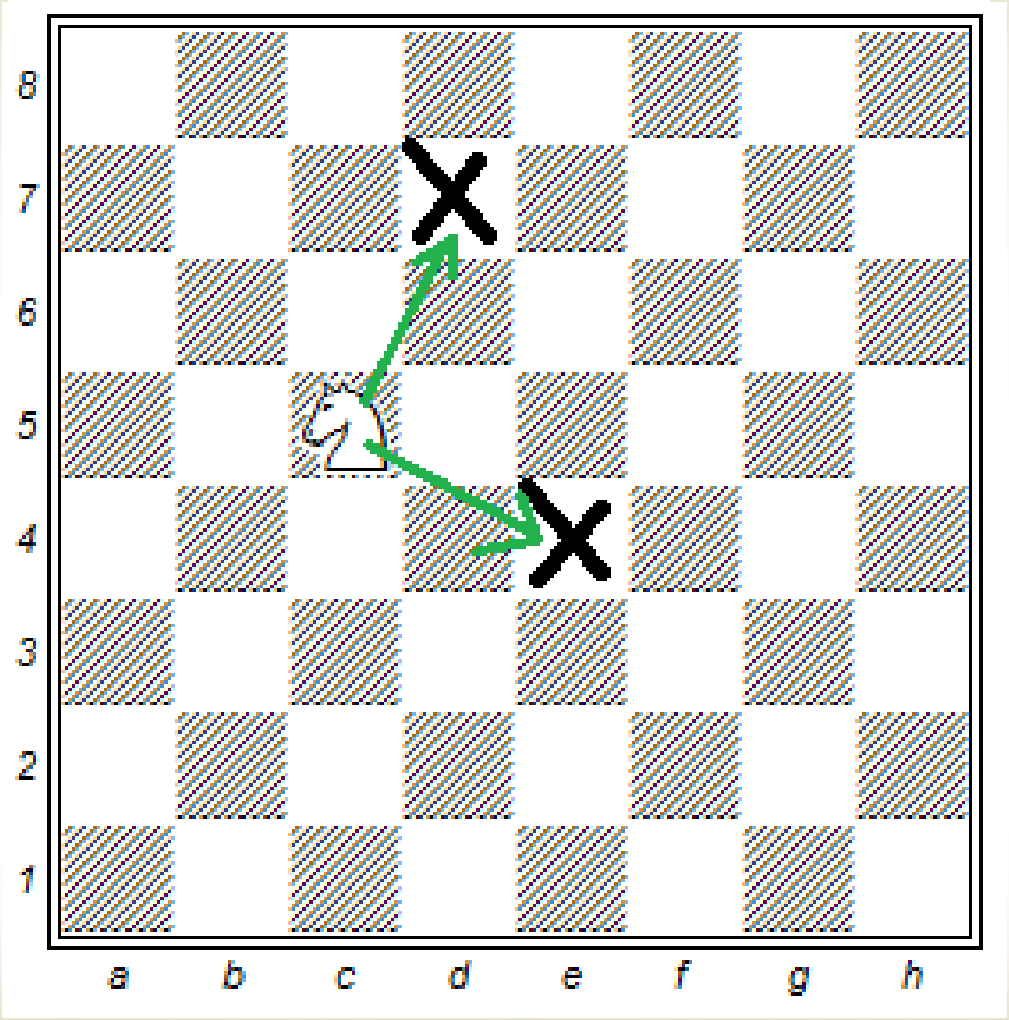
The hidden chesspiece

- c2, f7

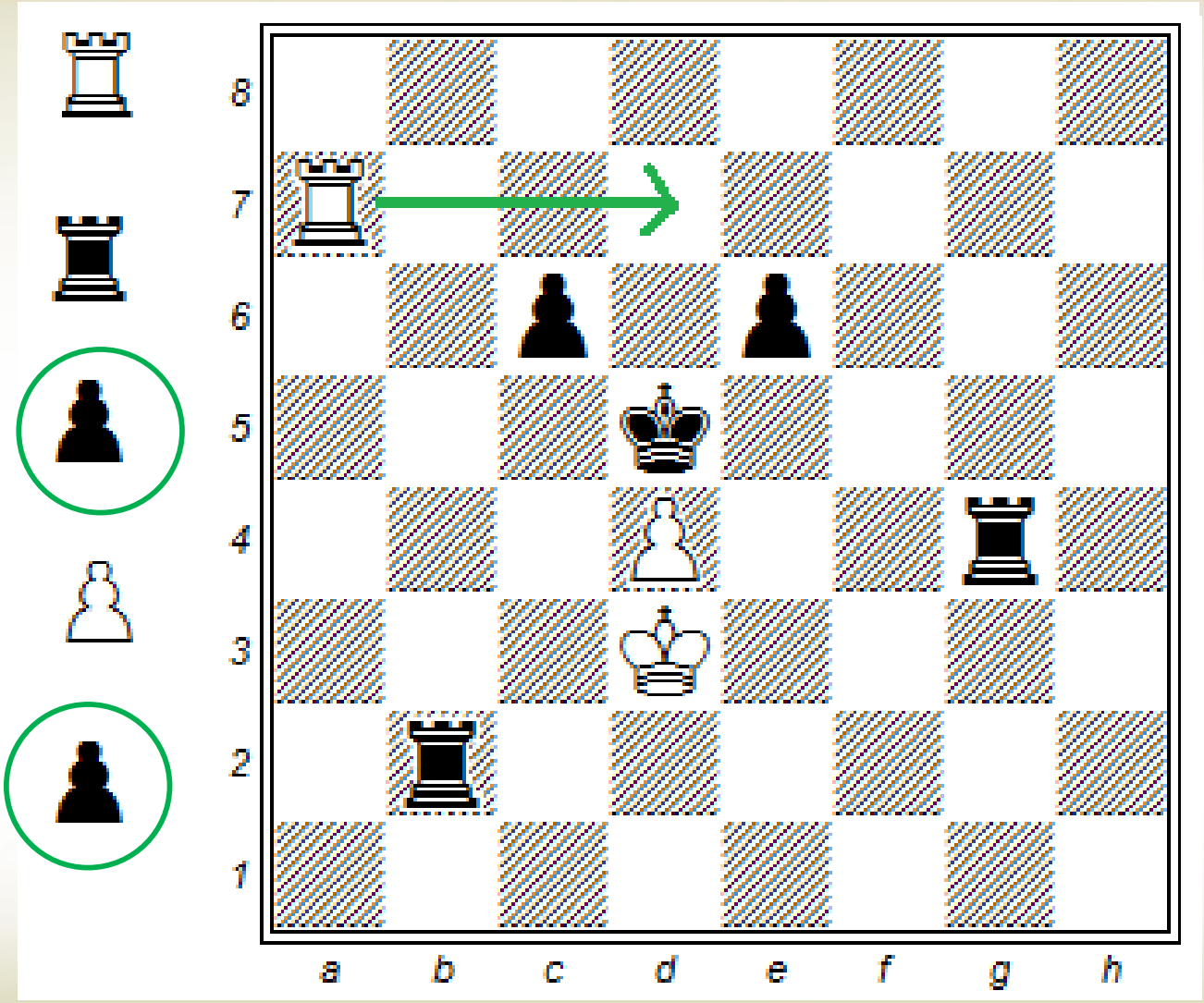


The hidden chesspiece

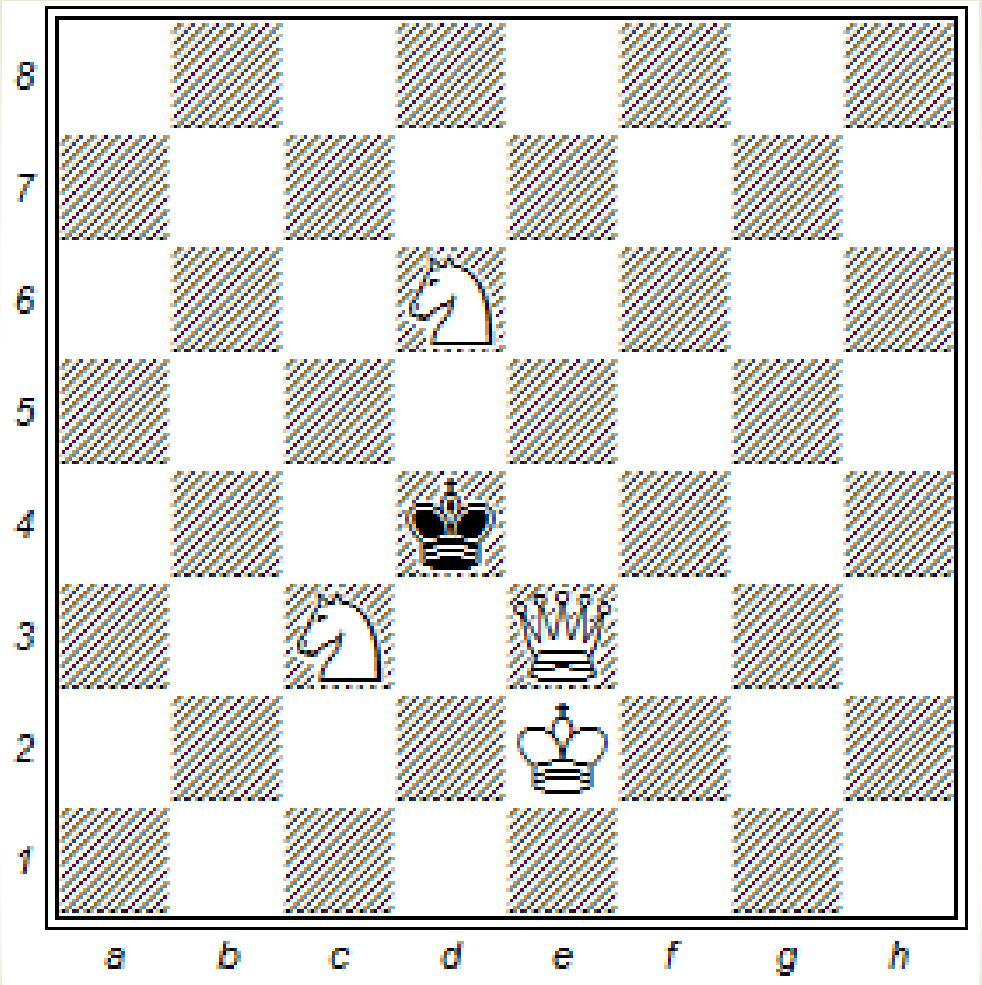
Knight:
controls d7, e4
but not d5



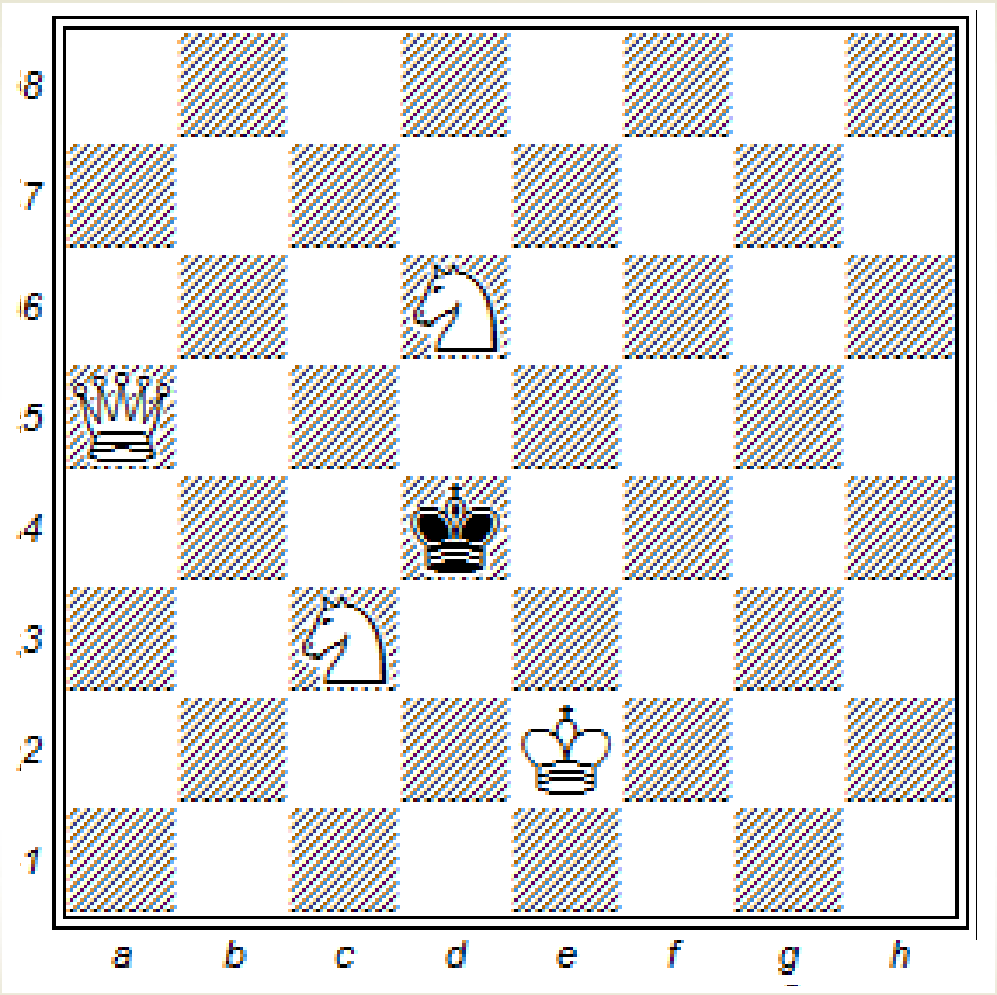
Substitution



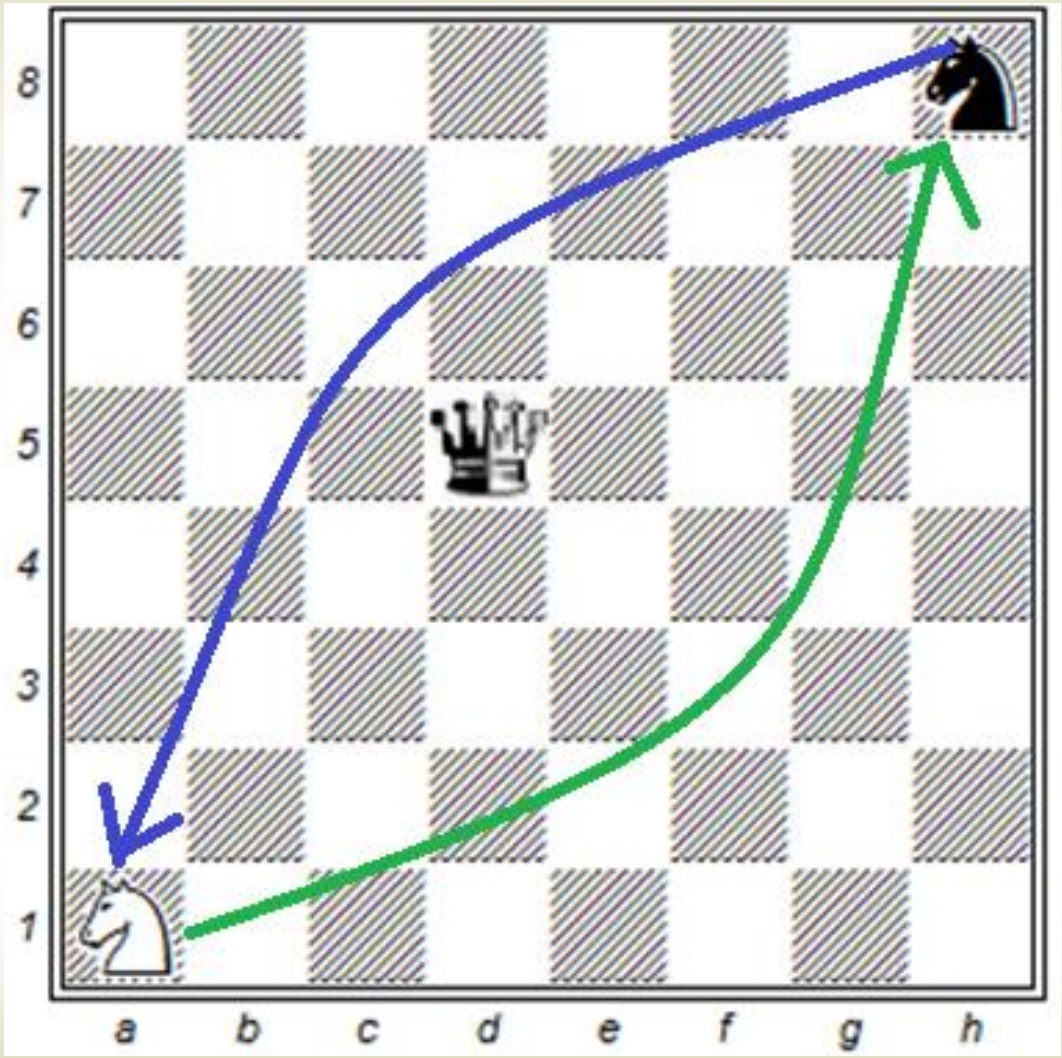
Missing piece



Missing piece



The Super Queen and the Knights



Super Queen and the Knights

- The Knight reaches first the opposite corner, wins.
- If a Knight is captured, it looses the game
- If the two Knights reach the opposite corners in the same number of moves, the game is drawn.
- Can be played by two players or two groups

SuperQueen and the Knights-variations

1. The SQ can be on any of the central squares. The position of the SQ can be randomised with a 4-sided dice on each move.

2. Next level, the two Knights can be blindfolded

3. Finally: empty chessboard

Further training tools for visualisation

- Chess Eye (software by IM Denis Salinnikov)
- learningchess.net
- Chess Visualisation Course (books by Ian Anderson)
- Scholastic Chess-Pupil Workbook (Rita Atkins, John Foley)
- chess.com/learning/vision
- Fritz-Calculation training