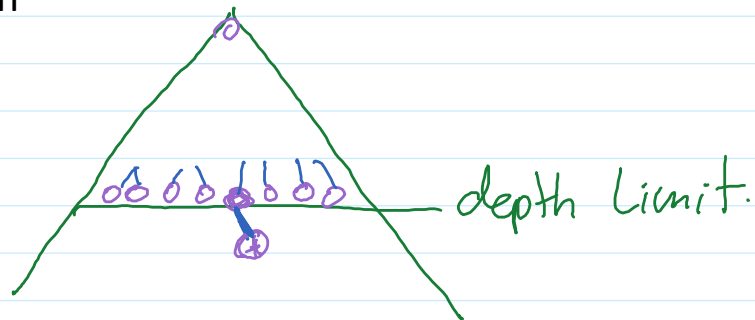


• Quiescence Search



Quiescent state.- a state unlikely to exhibit a wild change in value.

Example (Chess)



Black = pawn, knight, bishop
White = bishop.

≡ Not a quiescent state ≡

Quiescence Search:

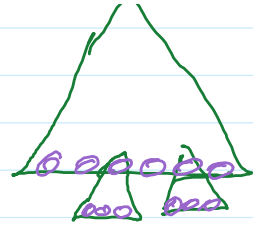
- if state is quiescent ; stop search.

else

- allow search to continue until quiescent state is reached.



state is reached.



Which state is Quiescent?

Need to develop test:

(Chess) - when captures are possible.

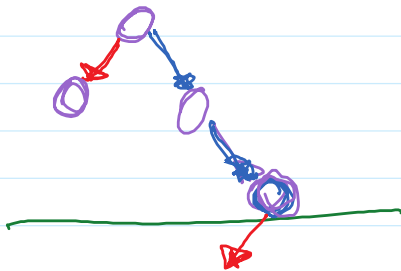
(* Cutoff Test for Quiescence Search *)

```
PROCEDURE cutoffTest( s : state, d )  
  IF term(s) THEN RETURN true  
  IF d >= depth_limit AND isQuiescent(s) THEN  
    RETURN true  
  ELSE  
    RETURN false
```

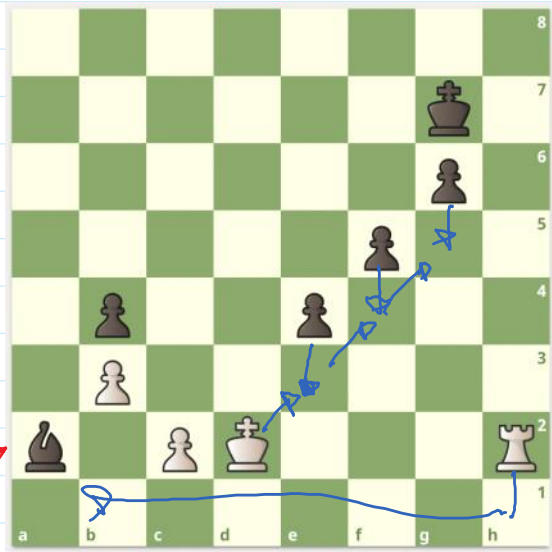
maybe • implement a hard limit

- The Horizon Effect :

- An unavoidable bad move is ignored by pushing it beyond the "Horizon" (the search cutoff value)



Example:



"Singular extension"

- identify strong consequential move
- test boundary states to see if "singular extension" is possible.
- if it is, continue search.

- The heuristic evaluation function is of supreme importance!

