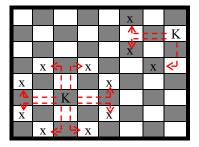
## **Knight Attack Minimum**

Consider a chessboard that is represented by a two-dimensional 8x8 array a[][] in which a[0][0] represents the board's upper left corner.

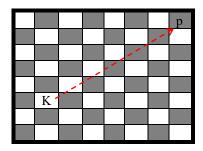
	0	1	2	3	4	5	6	7
0								
1								
2								
2 3 4 5 6								
4								
5								
7								

In chess, a knight moves in an L-shape, meaning, it moves two squares vertically followed by one square horizontally, *or*, two squares horizontally followed by one square vertically.



We place one knight and one pawn on a chessboard and stipulate the pawn never moves.

What is the minimum number of moves the knight must make to capture the pawn?



Minimum moves of the knight?

Write a function

int captured(int knight\_r, int knight\_c, int pawn\_r, int pawn\_c)
where

knight\_r, knight\_c is the knight's staring location

pawn\_r,pawn\_c is the pawn's staring location

and returns the minimum number of moves for the knight to capture the pawn if

(0 <= knight\_r, knight\_c, pawn\_r, pawn\_c <= 7) and the pieces are not placed on the same square, otherwise returns -1.

File you must submit: soln\_func.cc

## Examples:

knight\_r=5,knight\_c=5, pawn\_r=4,pawn\_c=4 Returns: 2

Explanation: Can capture in 2 moves.

		0	1	2	4	5	6	7
(	)							
1	1							
2	2							
3	3				Ų	i	- 1	
4	1				<u> </u>		*	
5						K-	-1	
6	5							
7	7							

knight\_r=7,knight\_c=0, pawn\_r=0,pawn\_c=0 Returns: 5

Explanation: Can capture in 5 moves.

	0	1	2	3	4	5	6	7
0	p <		-,					
1		Έ.	4					
2								
3		3 ∢	<del>-</del>					
				2				
5		1 -		_^				
6		<b>^</b>						
7	K -	_'						