

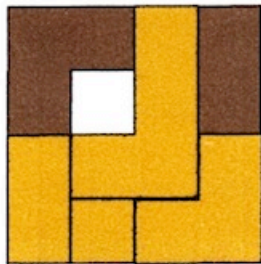
# Stumbling Block



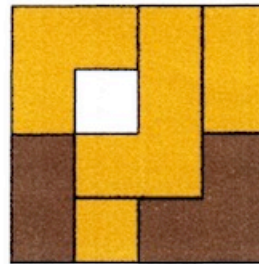
## STUMBLING BLOCK

Exchange the four corners as shown.

**Rules for moving:** A piece is allowed to slide, fly or flip over to a new position. Only one piece may be moved at a time.



**START**



**FINISH**

*Designed by Dick Hess and made by Walt and Chris Hoppe 2010.  
(wood pieces in a cardboard box 5.3" x 3.8" x 7/8")*

# Stumbling Block Solution Sheets

**PROBLEMS AND SOLUTIONS**

Twenty-five problems are presented in approximate order of difficulty. Problems 1-4 are on reduced boards and are intended for warm-up. Black cells in the start and finish positions indicate cells that are not to be used. (It may help to tape pieces over these cells while solving.) In many problems the object is to exchange the positions of two congruent tiles. The solution with the least known number of moves is given and is indicated by the sequence of cells exposed from one move to the next.

<p>Problem 1 (10 Moves)</p> <p>Start      Finish</p>	<p>Problem 2 (14 Moves)</p> <p>Start      Finish</p>	<p>Problem 3 (16 Moves)</p> <p>Start      Finish</p>	<p>Problem 4 (22 Moves)</p> <p>Start      Finish</p>	<p>Problem 5 (20 Moves)</p> <p>Start      Finish</p>
<p>Problem 6 (29 Moves)</p> <p>Start      Finish</p>	<p>Problem 7 (23 Moves)</p> <p>Start      Finish</p>	<p>Problem 8 (29 Moves)</p> <p>Start      Finish</p>	<p>Problem 9 (30 Moves)</p> <p>Start      Finish</p>	<p>Problem 10 (38 Moves)</p> <p>Start      Finish</p>
<p>Problem 11 (40 Moves)</p> <p>Start      Finish</p>	<p>Problem 12 (42 Moves)</p> <p>Start      Finish</p>	<p>Problem 13 (47 Moves)</p> <p>Start      Finish</p>	<p>Problem 14 (46 Moves)</p> <p>Start      Finish</p>	<p>Problem 15 (46 Moves)</p> <p>Start      Finish</p>
<p>Problem 16 (44 Moves)</p> <p>Start      Finish</p>	<p>Problem 17 (42 Moves)</p> <p>Start      Finish</p>	<p>Problem 18 (43 Moves)</p> <p>Start      Finish</p>	<p>Problem 19 (54 Moves)</p> <p>Start      Finish</p>	<p>Problem 20 (54 Moves)</p> <p>Start      Finish</p>
<p>Problem 21 (54 Moves)</p> <p>Start      Finish</p>	<p>Problem 22 (54 Moves)</p> <p>Start      Finish</p>	<p>Problem 23 (52 Moves)</p> <p>Start      Finish</p>	<p>Problem 24 (68 Moves)</p> <p>Start      Finish</p>	<p>Problem 25 (90 Moves)</p> <p>Start      Finish</p>

**SOLUTIONS**

1. (10 Moves) J MGJIK EOFNJ
2. (14 Moves) J KFNJG MNKIM JOEJ
3. (16 Moves) J OJIN KEMOF IGEIN J
4. (22 Moves) D CKDJM KIAME NIKEJ DAINK CD
5. (20 Moves) P NFAPO EBJEO AKFNK AOJBP
6. (29 Moves) C FAJNP CEMGF JPDBI AFDJC IGMFD PNJC
7. (23 Moves) A BKOCF EKINF CEMKB AIJGC OFA
8. (29 Moves) F KIFCO JGINF AGEMJ BAIGO MFKBE GKNJ
9. (30 Moves) M FDNKC MJFCI NGEMK FIJEG JICFK MDGNM
10. (38 Moves) C AIMOG BFOMI KNFMJ OFKCO GJMCF NKIMO FBGOM IAC
11. (40 Moves) F BJANI FAKOM EGPNJ LOGDF HPJGE JMDLK IFNME KAJBF
12. (42 Moves) F NICFE GAKPC BJLDF OPHCI KDOMF HPDLF MOGEI NPKAJ BF
13. (47 Moves) F BJNIA KOMJE GPNFL OICKJ CIGDM FHPNJ GEJMD LKIFN MEKAJ BF
14. (46 Moves) N CMOLB NPFBE MOGEB CIABJ MFNME JBNIC BEGOM EBAFP NBLOM N
15. (46 Moves) N MOLBN PFABE MOGBA KFBJG OJMFN KMOGJ BGOMK AFPNM EBLON N
16. (44 Moves) G OCAIN GBFNI KCOMF KNJGO KFAE JBAIK FDBEO JCDPK FNGMK PCAIJ OP
17. (42 Moves) D ACKDG OMEKN JOGJN HCKEB GDKHN JGOJN KDBEM OGDKC AD
18. (43 Moves) D ACKDG AKBDA CKDFI NHDKC AJHDB FKHN GOMFE MOGDK CAD
19. (54 Moves) D ACKDG AKBDA CKDFI NKEMN FAIKM JBEJM KIFNM EKNIF DKCAD BKAGD KCAD
20. (54 Moves) D ACKDG AKBDA CKDFI NHGEB JMKIA GJLGH KMEFD LJCHN IGOMF EMOGD KCAD
21. (54 Moves) L PHCFL DBJMF NPMGP HCICK GJLDP HFKHP DLGPK IGMIC HPNFM JBDLF CHPL
22. (54 Moves) D NPCFE MDGAK BJGDM OFDIN JGEMP NFIMJ EGJPI CFODG JBKAG DOMEF CPND
23. (52 Moves) P OJIAP KMGNF KPACJ OEPDF KFAE JBAIK FDBEO JCDPK FNGMK PCAIJ OP
24. (68 Moves) P OJIAP KMGNF KPACJ OEBFK IFGMP NIACM EFNIF EJCAI NPJMG FIKFB EOJCP  
KFNGM KPCAI JOP
25. (90 Moves) D CFEMD GAKBJ GDNFC IKMJG EJMKI FNMEG KLNIC JPDFO MPNFD MKCIM LFNPG  
MOKIN FGEMK FIJEG JMKIC FNDGJ BKAGD MEFCD