A STACKING PROBLEM
Answer Guide

1. Block 1 should be placed on C. If it is placed on B, then Block 2 has to go on C and there is nowhere it can then be moved so that C is available for Block 3. That means it takes 3 moves to shift the 1/2 stack to B ready for 3 to move to C. Those moves are:
    - 1 to C
    - 2 to B
    - 1 to B on top of 2
    It then takes one more move for 3 to reach C and one more to shift 1 to A. A total of 5 moves.

2. To free up Block 5 to be on B, Blocks 1 - 4 must be on C. This takes 15 moves in total.
    To free up Block 6 to be on C, Blocks 1 - 5 must be on B. This takes 31 moves in total.

3. One way to describe the process is:

    The first major aim is to free up the 6 to move it from A to C. This takes 31 moves to move the stack 1 to 5 onto position B. In order to do this an earlier step was to free up the 5 to put it on B. This means the stack 1 to 4 has to get to C, which will take 15 moves. To free block 4 to go to C means the stack 1 to 3 must first go to B which takes 7 moves.

    Move 32 is the 6 from A to C. Then stack 1 to 4 must move to A (15 moves) to free up the 5 to go onto the 6 which will be move number 48.

    Then to allow the 4 to go from A to B, stack 1 to 3 needs to go to C (7 moves). The total is 56 so far, after the 4 is moved.

    Finally the stack 1 to 2 goes to A (3 moves) and the last (60th) move is the 3 onto the 4 at B.

    The major secret is to learn to move any stack of any number from one place to another. The table of results for this is:

No. in stack	1	2	3	4	5	6	7	8	9	10	11
No. of moves	1	3	7	15	31	63	127	255	511	1023	2047