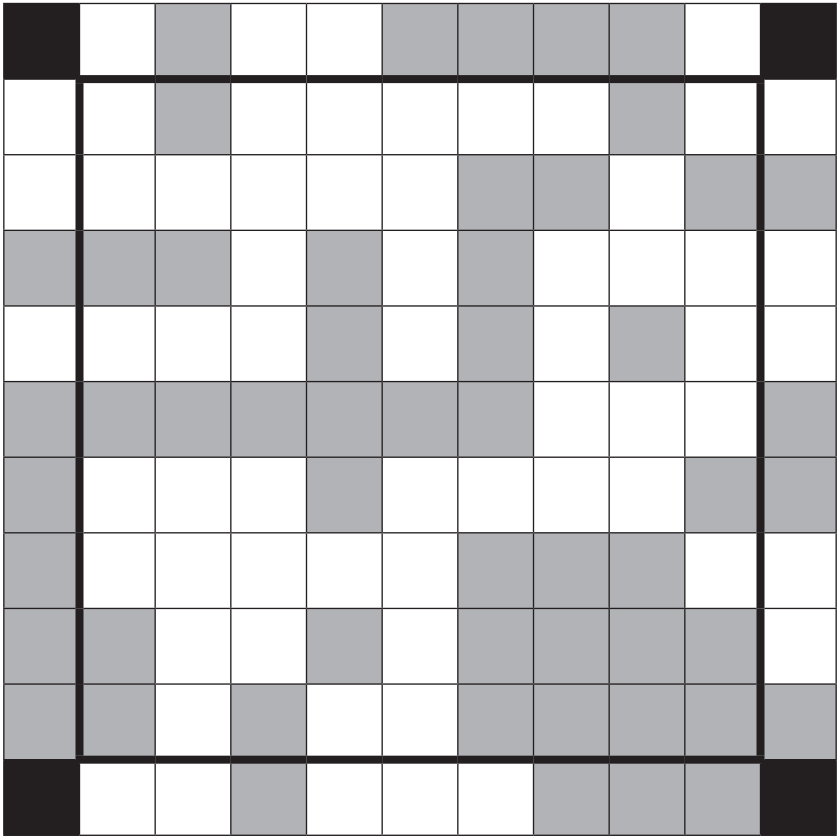
SKYSCRAPERS - neighbours

Place digits 1–3 in the grid so that in each row and column, each digit appears three times in the bold outlined 9x9-box. Numbers in grey cells do not share an edge with a cell containing the same number. Numbers in white cells share an edge with at least one cell containing the same number. All grey cells are given.
Also, the digits in the bold outlined 9×9 box each represent skyscrapers of their respective heights. The digits outside the grid indicate how many skyscrapers can be seen in the respective row or column from the respective direction. (A skyscraper hides all skyscrapers behind it that are of equal or lower height.)