# Adalogical Ænigmas
### No. 46

Gentle solver,

I feel *quite* certain that you must share my longtime fascination with the phenomenon of *magnetism*, that seemingly (though of course not *actually*) magical tendency of some iron materials to actively seek out the company of others. Much like our own human sense of *hearing*, which naturally and irresistably is drawn to the loudest noise in proximity, magnets respond most to the pull of the largest concentration of iron nearby.
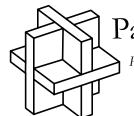
The present ænigma was inspired by this *discriminating* property of magnetism.

In the grid below, the arrows represent the sensitive magnetic needles of *compasses*, each compelled to indicate the greatest quantity of iron nearby (as represented by numbers you shall enter into the grid).

The task I have set for you is to enter one number into each white square such that every heavily outlined *region* contains all of the integers from 1 to the size of that region. You mayn't allow the *same* number to appear in any two adjacent squares (across regions) and, of course, each arrow must point to the *single* largest number among its immediate horizontal and vertical neighbors.

Once you've completed your grid, you may move on to finding the final answer to my ænigma. Note the letters in squares that now contain the number 3, and advance each in the alphabet (wrapping around from Z to A if necessary) by the largest of its horizontally or vertically *adjacent* numbers. Reading the resulting letters, left to right and top to bottom, will reveal a clue to your final answer.
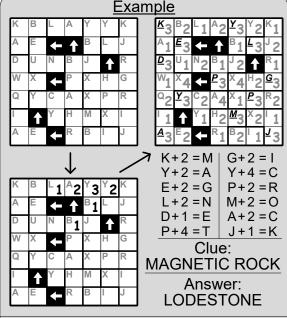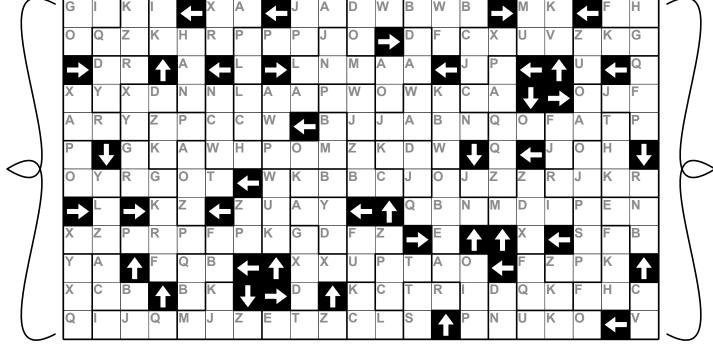
Good luck!

*Ada*

### Example



$K + 2 = M$    $G + 2 = I$
$Y + 2 = A$    $Y + 4 = C$
$E + 2 = G$    $P + 2 = R$
$L + 2 = N$    $M + 2 = O$
$D + 1 = E$    $A + 2 = C$
$P + 4 = T$    $J + 1 = K$

Clue:
**MAGNETIC ROCK**

Answer:
**LODESTONE**

Need assistance with Ada's ænigma? Hints and other help are available at *www.pavelspuzzles.com/aenigmas/46*



Send your answer to *aenigma@pavelspuzzles.com* to enter the drawing for a **free physical puzzle** and to earn a **10% discount** at Pavel's Puzzles! Full details are at *www.pavelspuzzles.com/aenigmas/46*.

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