

### Problemath 1

What are the solutions  $x \in \mathbb{R}$  of the equation

$$|x+1| - |x| + 3|x-1| - 2|x-2| = x+2?$$

### Problemath 2

Let  $p(x)$  be a polynomial with integer coefficients such that  $p(2) = 13$  and  $p(10) = 5$ . If  $p(x)$  has one integer root, what is the value of this root?

### Problemath 3

Is it possible to assemble 250 bricks of size  $1 \times 1 \times 4$  into a  $10 \times 10 \times 10$  cube?

***Deadline Friday 3 October 14:00***