# PP46746

MIHÁLY BENCZE - ROMANIA

If $a, b \in \mathbb{C}$ then:

$$|a| + |b| + |2a + b| + |a + 2b| \geq 4|a + b|$$

*Solution by Daniel Sitaru.*

$$|a| + |b| + |2a + b| + |a + 2b| \geq$$
$$\geq |a + b + 2a + b + a + 2b| =$$
$$= |4(a + b)| = 4 \cdot |a + b|$$

Equality holds for $a = b = c = 0$. $\qquad\qquad\square$

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