

# Problemen

| Problem Section

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**Problem 1**

Eleven journalists have their own bit of slander. They possess special telephones that allow three men to communicate with each other. How many calls are needed to inform everyone of everyone else's information?

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**Problem 2**

Construct a countable, compact subset of the plane, not contained in a line, that intersects no line in 2 points.

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**Problem 3**

Define  $a_n$ , for  $n \geq 0$  by  $a_0 = 3, a_1 = 0, a_2 = 2$  and  $a_{n+3} = a_n + a_{n+1}$  for all  $n \geq 0$ . Show that  $p|a_p$  for every prime number  $p$ .

*Solutions to the problems in this section can be sent to the editor — preferably by e-mail. The most elegant solutions will be published in a later issue. Readers are invited to submit general mathematical problems. Unless the problem is still open, a valid solution should be included.*

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