

## **AoPS Community**

## Problem of the Day

## **2013 North Korea Team Selection Test**

www.artofproblemsolving.com/community/c90 by syk0526

Find all  $a,b,c\in\mathbb{Z}$ ,  $c\geq 0$  such that  $a^n+2^n|b^n+c$  for all positive integers n where 2ab is non-square.