

Problem of the Week-1: Can You Get a Square?

A set contains nine (distinct) positive integers, none of which has a prime divisor greater than six. Show that we can find two (distinct) members of this set whose product is the square of an integer.

(Hint: Consider the prime factorizations of the nine numbers in this set.)

As always, explain and justify your answer.

Posting Date 8/28/11. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 9/9/11.