



Problem of the Week

Problem D

Doing Some Beading

Amir is putting beads on a string. He plans on starting with 8 round beads, then 24 square beads, then 48 round beads, and then p square beads (where $p > 0$).

At some point after he has put on n beads (where $n > 0$), he realizes that on his string there are twice as many beads of one shape than there are of the other shape. Determine the maximum and minimum values of p that result in exactly 5 possible values of n .

