Problem 19: Pebble Sets

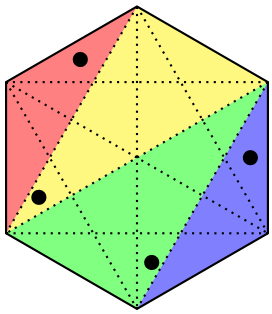
USMA D/Math Problem of the Week

Submission Deadline: April 17, 2008 at 1600

Circle one:	[cadet]	[faculty]	[non-usma student]	[non-usma faculty]	[other]

Problem Statement:

A *pebble set* in a hexagon is a collection of points chosen such that each triangle (with endpoints at the vertices of the outer hexagon) contains exactly one of the points.



How many hexagon pebble sets are there? (Consider two such sets to be equivalent if the pebbles all lie in the same regions formed by the dotted lines above.)

Submit your answer to Dr. Elisha Peterson at ae3263@usma.edu with the subject line **WP POTW**... or drop your solution off in my mailbox or on my desk (with date and time please!)