

SPS Problem of the Week 10/24/2020-10/31/2020

Problem 1. A chess player prepares for a tournament by playing some practice games over a period of eight weeks. She plays at least one game per day, but no more than 11 games per week. Show that there must be a period of consecutive days during which she plays exactly 23 games.

Hint: **Solve this easier related problem first** - Color the plane in two colors. Show that there will always exist an equilateral triangle with all its vertices the same color.