Caltech Math Circle Third grade group November 7, 2023

PLANAR GRAPHS

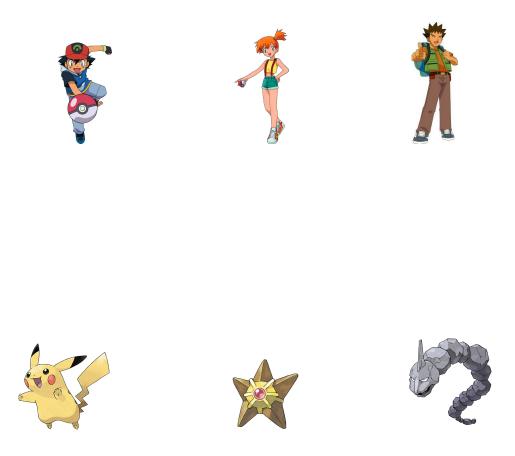
Problem 1. The two Pokemon trainers, Ash and Misty, gotta catch 'em all. Can we connect each trainer to each Pokemon with a curve that doesn't go through another character and doesn't require lifting the writing implement?







Problem 2. Brock also has gotta catch 'em all. Can we connect each trainer to each Pokemon with a curve that doesn't go through another character and doesn't require lifting the writing implement?



GRAPHS ON OTHER SURFACES

Problem 3. The trainers and Pokemon have been placed on a beach ball. Can we perform the procedure on the beach ball?

Problem 4. The trainers and Pokemon have been placed on an inner tube. Can we perform the procedure on the inner tube?