

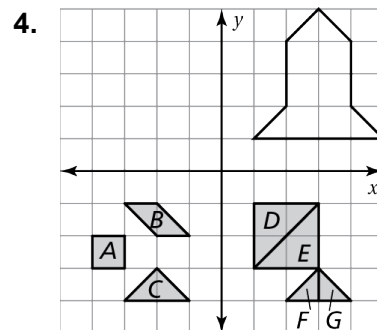
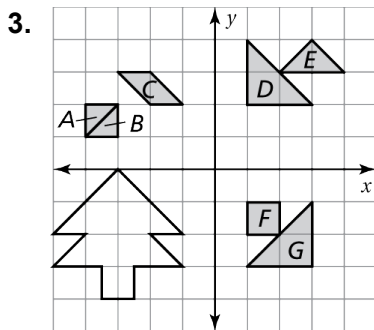
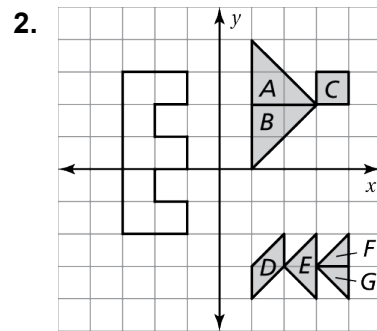
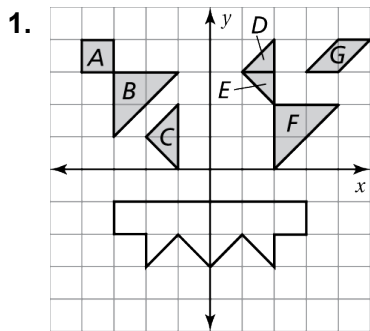
# 2.2

## Enrichment and Extension

### Tangrams and Translations

Tangram puzzles are believed to be ancient in origin but were first published in the early 1800s in China. The goal of a tangram puzzle is to arrange seven smaller shapes, called tans, without overlapping, to form the tangram shape. Your challenge is to create the tangram shapes below by translating the tans that appear on the same coordinate plane.

**Describe a translation for each tan so that they fill the tangram outline. Find both possible sets of translations for Exercise 3.**



- There are two ways to make the tangram in Exercise 4. Find the other way.
- Make your own tangram puzzle and describe the translations necessary to create it. Then give your puzzle to a friend and compare his or her translations with yours. Are they the same? Do they give the same result? Explain.