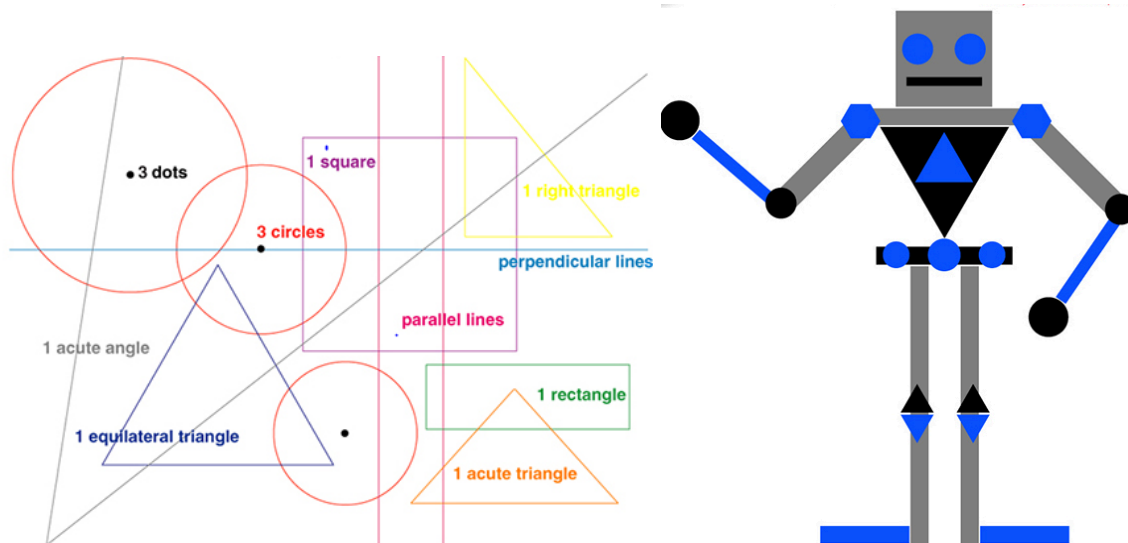


GeoArt Constructions Project

Geometric elements and patterns can be used to create a variety of artistic designs. You may sometimes encounter these designs in floor tiles or modern art exhibits.



Images from: <http://www.weareteachers.com/10-geometric-art-explorations/>

Warning! These images are provided to get you thinking about geometric patterns and art. They are not provided as examples for *your project*.

Goal: Using only a compass and straightedge, design a pattern that incorporates the following constructions. Designs should be created on a piece of 8 by 14 inch paper (found on the table by the window). If you prefer a smaller piece, you may fold it in half, but you may not go smaller than 8 by 7 inches.

- ☐ Perpendicular bisectors
- ☐ Congruent angles
- ☐ Parallel lines
- ☐ *At least one square*

Grading:

- ☐ Design incorporates at least one perpendicular bisectors *with compass marks visible to prove the segment was perpendicularly bisected.*
 - ☐ ____/4
- ☐ Design incorporates at least one pair of congruent angles *with compass marks visible to prove the angles are congruent.*
 - ☐ ____/4
- ☐ Design incorporates at least one pair of parallel lines *with compass marks visible to prove the lines are parallel.*
 - ☐ ____/4
- ☐ Design incorporates at least one square *with compass marks visible to prove that the sides are congruent and the angles are all right angles.*
 - ☐ ____/6
- ☐ Design is colored in an artistic fashion (*i.e.* the project looks like an art project as opposed to geometry homework). To each all 3 points, you need to find a way to link the constructions together. See the first page for examples.
 - ☐ ____/3
- ☐ Design executed neatly and project looks like a finished piece of art (as opposed to giving the appearance of being a rough draft).
 - ☐ ____/3

Total points: ____/24