Consider the art gallery problem on all "museum"-equivalence classes of polygons.

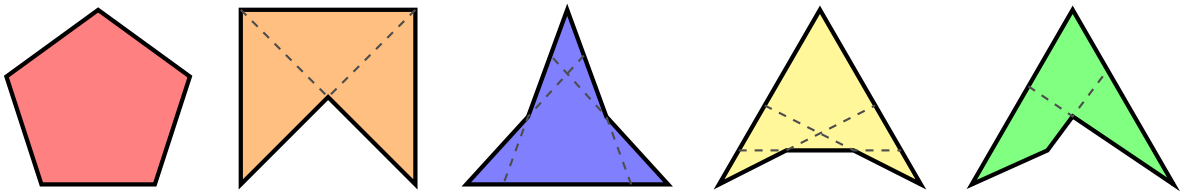
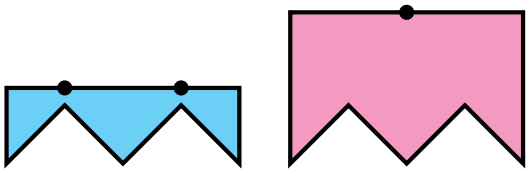


Figure 1: The concavity classes from Problem 53. It appears that the second and fifth polygons are museum-equivalent. Are the third and fourth polygons equivalent?

Question. If each polygon is a museum, how many guards are required to patrol the museum?

Related.

1. What if guards are stationed at a corner in the polygon?
2. What if guards are allowed to patrol along a wall?
3. What if the polygons are on a torus or cylinder?
4. What if the polygons are orthogonal (i.e. each wall meets at a right angle)?
5. What if the guards must patrol the outside of the polygon?
6. How many equivalence classes of museums exist? For example, the following museums are distinct, because the first requires two guards, and the second requires only one.



References.

Problem 53.

`https://en.wikipedia.org/wiki/Art_gallery_problem`