

1. The zookeeper of a major zoo wants to redo the zoo in such a way that the animals live together in their natural habitat. Unfortunately, it is not possible to put all the animals together in one location because some are predators of others. The dots in this chart below show which animals are predators or prey of which. The animals are identified only by letter. What is the minimum number of separate habitats that the zookeeper needs to build?

	a	b	c	d	e	f	g	h	i	j
a		•			•					•
b	•			•			•			
c								•		•
d		•				•				
e	•								•	
f				•						•
g		•								
h			•						•	
i					•			•		•
j	•		•			•			•	

2. Below is the floor plan for an art gallery. Determine the minimum number of security cameras needed to guard all the wall space of this gallery. Also determine where they should be located.

