

Grid-based logic problems

Amado, Dan, and Valeria are three friends who are meeting up at the beach. Each one uses a different vehicle: a car, a bike, or a boat. Each vehicle is a different colour: red, green or purple. Using the three clues below, can you work out who arrived in what?

1. Amado's vehicle is coloured green, but it doesn't have any wheels
2. The human-powered vehicle is not purple
3. Valeria did not use the red vehicle

	Car	Bike	Boat
Amado	X	X	O
Dan	X	O	X
Valeria	O	X	X

	Red	Green	Purple
X	O	X	
O	X	X	
X	X	O	

Red	X	O	X
Green	X	X	O
Purple	O	X	X

Five friends (Cortez, Erika, Jinlan, Marcus, and Tan) are each allergic to something different: bee stings, cats, nuts, pollen or shellfish. Can you use these clues to match the friend to their allergy?

1. Cortez has a food allergy
2. Erika can play with her kitten for hours without medicine
3. Jinlan's allergy is not related to animals
4. Marcus has seasonal allergies

	Bees	Cats	Nuts	Pollen	Shellfish
Cortez	X	X	X	X	O
Erika	O	X	X	X	X
Jinlan	X	X	O	X	X
Marcus	X	X	X	O	X
Tan	X	O	X	X	X

The Meza family has three kids named Adriana, Silvia and Carlos. They are all in different years at school: Years 4, 5 and 6. It's the school science fair and each brings a different experiment: a model dinosaur egg, an electric kite, and a trained rat. Who brought what to which grade level fair?

1. Carlos, the youngest, does not bring an electric kite
2. Adriana was proud of her model dinosaur egg
3. The Year 5 student did not bring the kite either

	Year 4	Year 5	Year 6
Adriana	X	O	X
Carlos	O	X	X
Silvia	X	X	O

	Egg	Kite	Rat
	O	X	X
	X	X	O
	X	O	X

Egg	X	O	X
Kite	X	X	O
Rat	O	X	X

The local natural history museum is displaying four dinosaurs in four different rooms surrounded by four different habitats. The rooms start with the entry and then are numbered in order of when guests will walk into them. Can you use the clues below to describe each of the exhibits?

1. The first two rooms do not have grass nor a Velociraptor
2. A carnivore lurks in the room right after the Stegosaurus
3. The Apatosaurus is no where near a body of water, but it is in Hall 2
4. The cliff exhibit comes right after the beach exhibit, and it's not in Hall 2

	Entry	Hall 1	Hall 2	Hall 3
Apatosaurs	X	X	O	X
Stegosaurus	O	X	X	X
T. rex	X	O	X	X
Velociraptor	X	X	X	O

	Beach	Cliff	Grass	River
	X	X	O	X
	O	X	X	X
	X	O	X	X
	X	X	X	O

Beach	O	X	X	X
Cliff	X	O	X	X
Grass	X	X	O	X
River	X	X	X	O