

Striped cats and blue owls: properties of objects.

(In this lesson we are using the game called CatsOwls made by Bandaumnikov company (<https://bandaumnikov.ru>)

Today we will play with cats and owls. There are 8 of them and they are different in some way, but similar in other ways. First we will discuss how we can separate the animals based on their properties, in how many ways can we do it?



By shape:



By color:



By shading:



Then we will play a simple game: throw the “property dice” (the dice that has 6 sides: orange, blue, striped, dotted, cat shaped and owl shaped) and **count how many animals on the board have this property**. You can’t tell the number but can only show it with your fingers.



Too simple? Let us do something harder.

Using a set of our 8 animals, let us find animals that differ by only one property.

How many different animals can we find that are different from blue striped owl only by one property? What about orange dotted cat? Will we always have 3 different animals that differ from our original animal by a single property? Why?



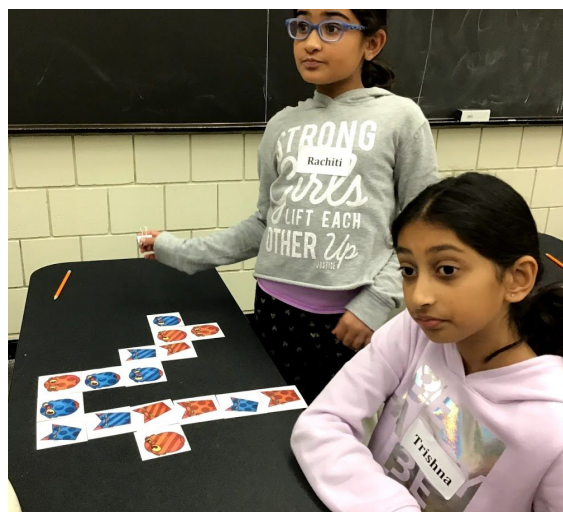
Now we will find animals that differ by two properties. How many animals will we find?

By three properties? Can we find more than one animal that is different by all 3 properties? Why?

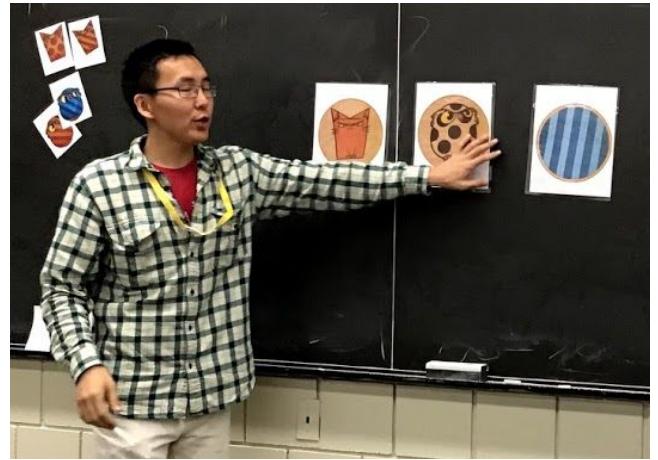


Now let us play the game:

Each of you will have set of all eight animals. We will take turns putting down 1 animal at a time and making a chain of animals where each neighboring animals are different by only 1 property. Let us see if we can put down all out animals and never run out of places to put them. If we put down an animal in the corner, touching 2 animals on 2 different sides, then we need to make sure it is different by a single property from both of its neighbor animals.



We have 3 property cards: one for orange cats, one for dotted owls, and one for striped blue animals. Which animals fit each of the property cards? Which animals fit the “cat and orange” property card by both properties? Dotted and striped orange cats! Which animals fit only halfway, by only one of the properties? Striped and dotted blue cats, and striped and dotted orange owls for a total of 4! For each property card, let us build around it the animals that fit it by one of the properties.



Now we will play a game: Lena will roll a die with numbers, and Anar will open a new card on the screen. The task of the players is to quickly find a common feature of animals, the number of which corresponds to the number dropped, and grab a card with the right property and show it. Who can spot the property the fastest?

