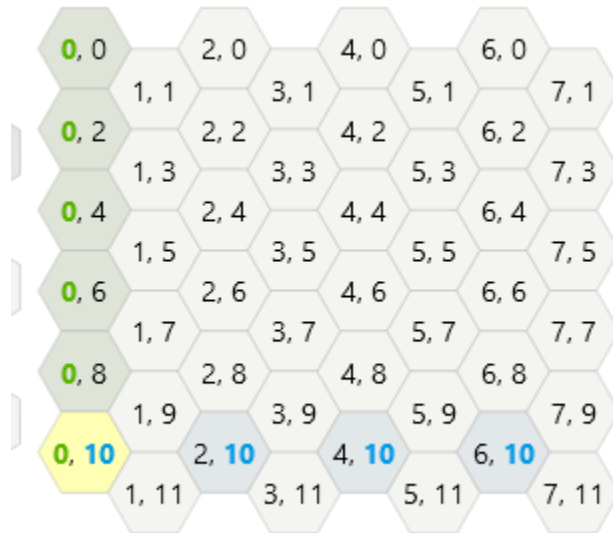


### Double-Height Coordinates:

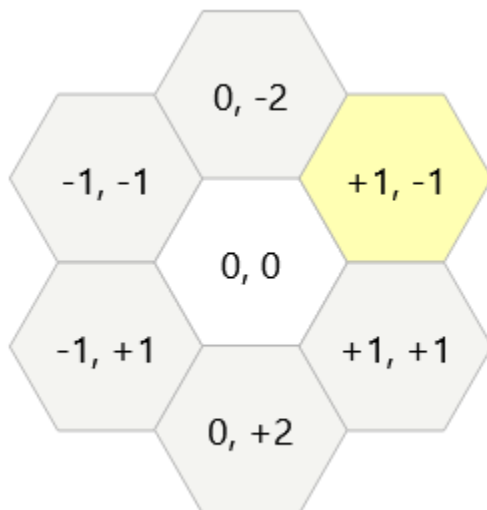
We use double-height coordinates for hexagonal coordinates in our system. This was inspired by this website guide. All credit goes to them.

<https://www.redblobgames.com/grids/hexagons/#coordinates-doubled>.

Basically, this means that for going across vertical boundaries the y-coordinate of the hexagon is doubled. This is nicely illustrated by this graphic in this page



This makes the neighbor property easier to achieve as we can use the following diagram to show how we obtain neighbors for each hexagon.



As shown, we can apply these + and – coordinates offsets in each direction to obtain the neighbors in an easy fashion, as well as intuitively reason about coordinates on the board. For that reason we choose the “double height” coordinate system.