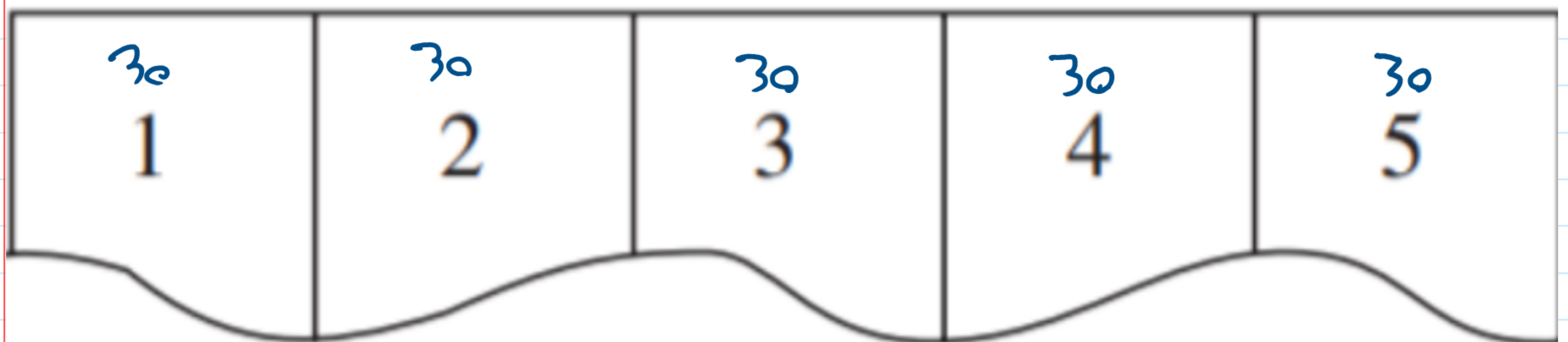


Consider a location game with five regions on the beach in which a vendor can locate. The regions are arranged on a straight line, as in the original game discussed in the text. Instead of there being two vendors, as with the original game, suppose there are *three* vendors who simultaneously and independently select on which of the five regions to locate. There are thirty consumers in each of the five regions; each consumer will walk to the nearest vendor and purchase a soda, generating a \$1.00 profit for the vendor. Assume that if some consumers are the same distance from the two or three nearest vendors, then these consumers are split equally between these vendors.

- (a) Can you rationalize the strategy of locating in region 1?
- (b) If your answer to part (a) is “yes,” describe a belief that makes locating at region 1 a best response. If your answer is “no,” find a strategy that strictly dominates playing strategy 1.



$$\text{max rev} = 30 \cdot 5 \cdot 1 = 150$$

a) It's never the best strategy to locate in region 1 unless it holds value in a different way (ATM, picnic tables, etc) or if it is guaranteed that all players choose region 1

b) NO: location 3 would dominate because it is in the middle and can draw both sides

Yes: If there are other amenities that would draw more people to region 1, you would need to get at least 20 extra people