

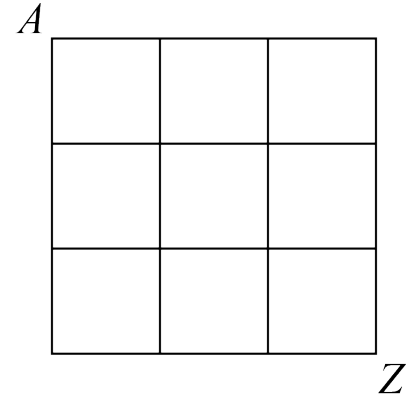


# Problem of the Week

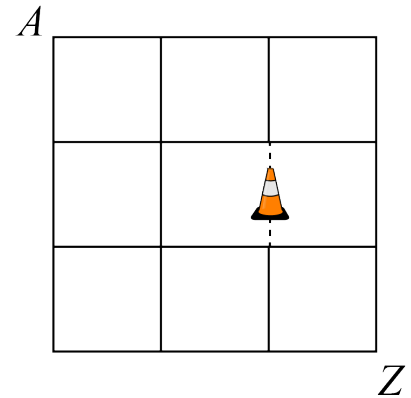
## Problem B

### Pathways

(a) Armaan walks to the zoo every day. A map of the streets between Armaan's house and the zoo is shown, where Armaan's house is represented by  $A$ , the zoo is represented by  $Z$ , and the streets are represented by line segments. How many different routes can Armaan take from his house to the zoo if he always walks either east or south? Consider the top of the page to be north.



(b) On Tuesday there is some construction, so part of a street is closed, as shown. Armaan cannot walk on the closed part. How many different routes can Armaan take from his house to the zoo on Tuesday?



(c) On Friday, an intersection is closed, as shown. Armaan cannot walk through this intersection. How many different routes can Armaan take from his house to the zoo on Friday?

