1.6 Random Walk Simulation

1. How many possible step configurations are possible? That is, what is the sample space of the experiment of taking three steps to right or left, with equal probability for each direction?

Since there are two outcomes and three "trials," or steps in this case, we can use:

$$k^n$$

Plugging in the outcomes and steps,

$$2^3 = 8$$

There are 8 step configurations possible.