Janae was vacuuming the narrow hallway in her house. She went 5 feet forwards in the first 4 seconds, then went 3 feet backwards in the next 4 seconds. She continued to do this, forwards 5 feet in 4 seconds and backwards 3 feet in 4 seconds. If she continues in this way, how many seconds will it take her to reach the end of her hallway, which is 15 feet long?

The gearshift on Maxine’s rototiller was malfunctioning. She found that it would travel forward 4 feet in one minute, but then shift into reverse and go back 3 feet before the shift would allow her to put it back in forward. The backwards part also took about a minute to complete. How long would it take her to till a 13-foot-long section of her garden with this rototiller?