Joey is interested in investigating so-called hot streaks in foul shooting among basketball players. He's a fan of Carla, who has been making approximately 80% of her free throws. Specifically Joey wants to use simulation methods to determine Carla's longest run of baskets on average, for 20 consecutive free throws.

- 1 Describe a correspondence between random digits from a random digit table and outcomes.
- 2 What will constitute one repetition in this simulation?
- 3 Starting with line 101 in the random digit table, carry out 10 repetitions and record the longest run for each repetition.

4 What is the mean run length for the 10 repetitions?