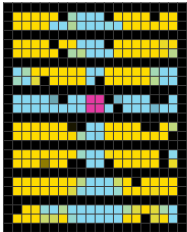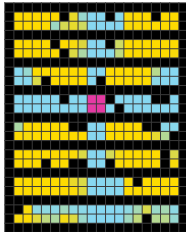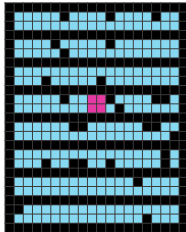sample   sample average   guess 1   guess 2