Genetic Algorithms

Link words and definitions:

Selection	Value assigned to each solution representing the abilities of an individual to `compete'.
Crossover	Its purpose is to maintain diversity within the population and inhibit premature convergence.
Mutation	To combine two parents to form children for the next generation.
Fitness score	To choose the individuals, called parents, that contribute to the population at the next generation.

True or False?

o A genetic Algorithm is an optimization tactic to look for the best solution

o It avoids local optima and searches for global fitness

o Genetic algorithms are search optimization techniques based on Darwin's principle of natural selection

During the listening:

- It is looking for a _____ and _____ solution rated against fitness criteria, so it avoids _____ _____ and searches for global fitness

- Selection duplicates structures with _____ fitnesses and deletes structures with _____ fitnesses

- Mutation creates new structures that are similar to _____ structures

- The GA begins with the population of _____ generated structures where each structure _____ a solution to the task

- It proceeds to _____ generations; during each generation the GA _____ the structures in its current population by performing _____ followed by _____ followed by _____