

Table 7.1 The initial randomly generated population of chromosomes

Chromosome label	Chromosome string	Decoded integer	Chromosome fitness	Fitness ratio %
X1	1 1 0 0	12	36	16.5
X2	0 1 0 0	4	44	20.2
X3	0 0 0 1	1	14	6.4
X4	1 1 1 0	14	14	6.4
X5	0 1 1 1	7	56	25.7
X6	1 0 0 1	9	54	24.8

218

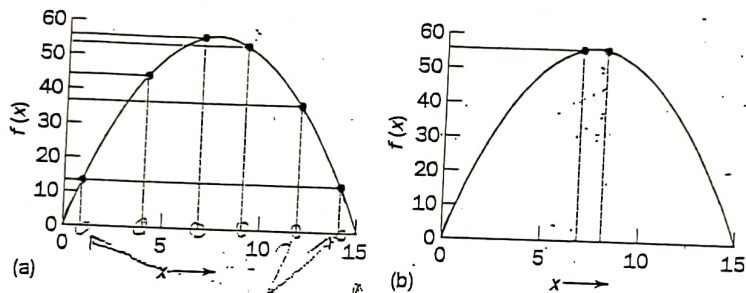


Figure 7.3 The fitness function and chromosome locations: (a) chromosome initial locations; (b) chromosome final locations

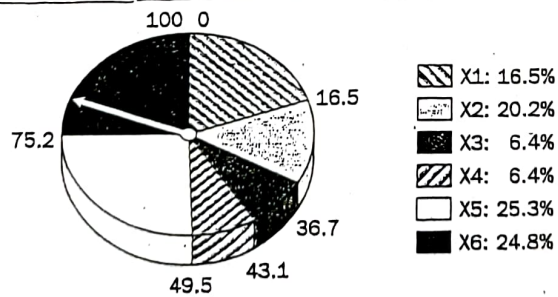
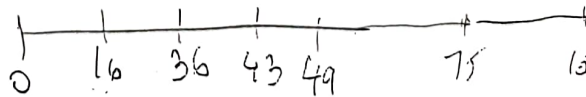


Figure 7.4 Roulette wheel selection



Aug. fitness  
= 218

Aug. fitness  
= 304

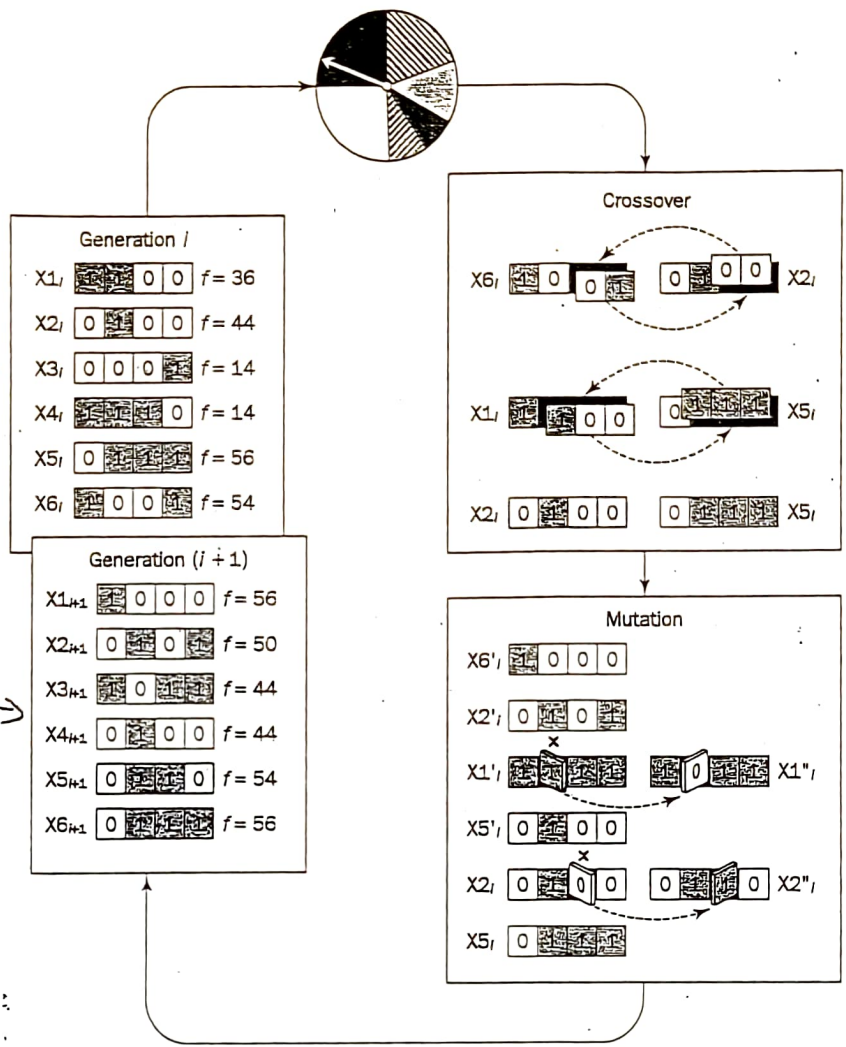


Figure 7.5 The GA cycle

several  
mutations