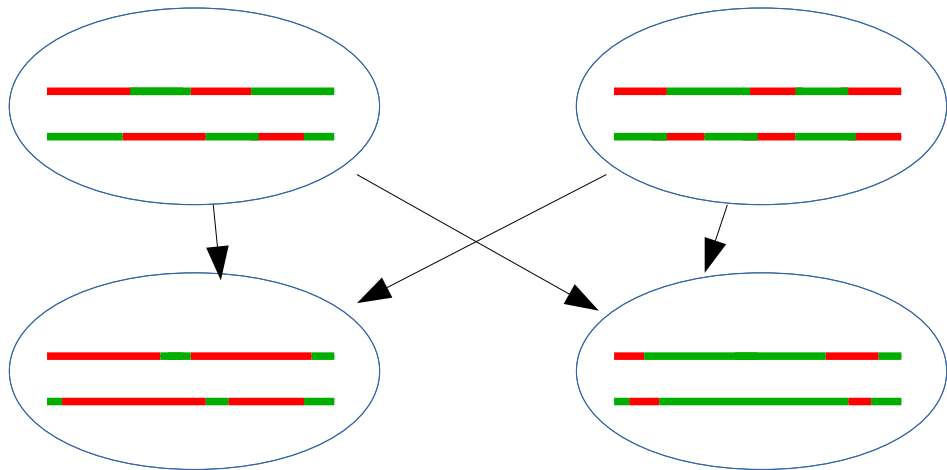Parent s   Parent d

Offspring i   Offspring j

$$a_i = 1/2a_s + 1/2a_d + m_i$$
$$a_j = 1/2a_s + 1/2a_d + m_j$$