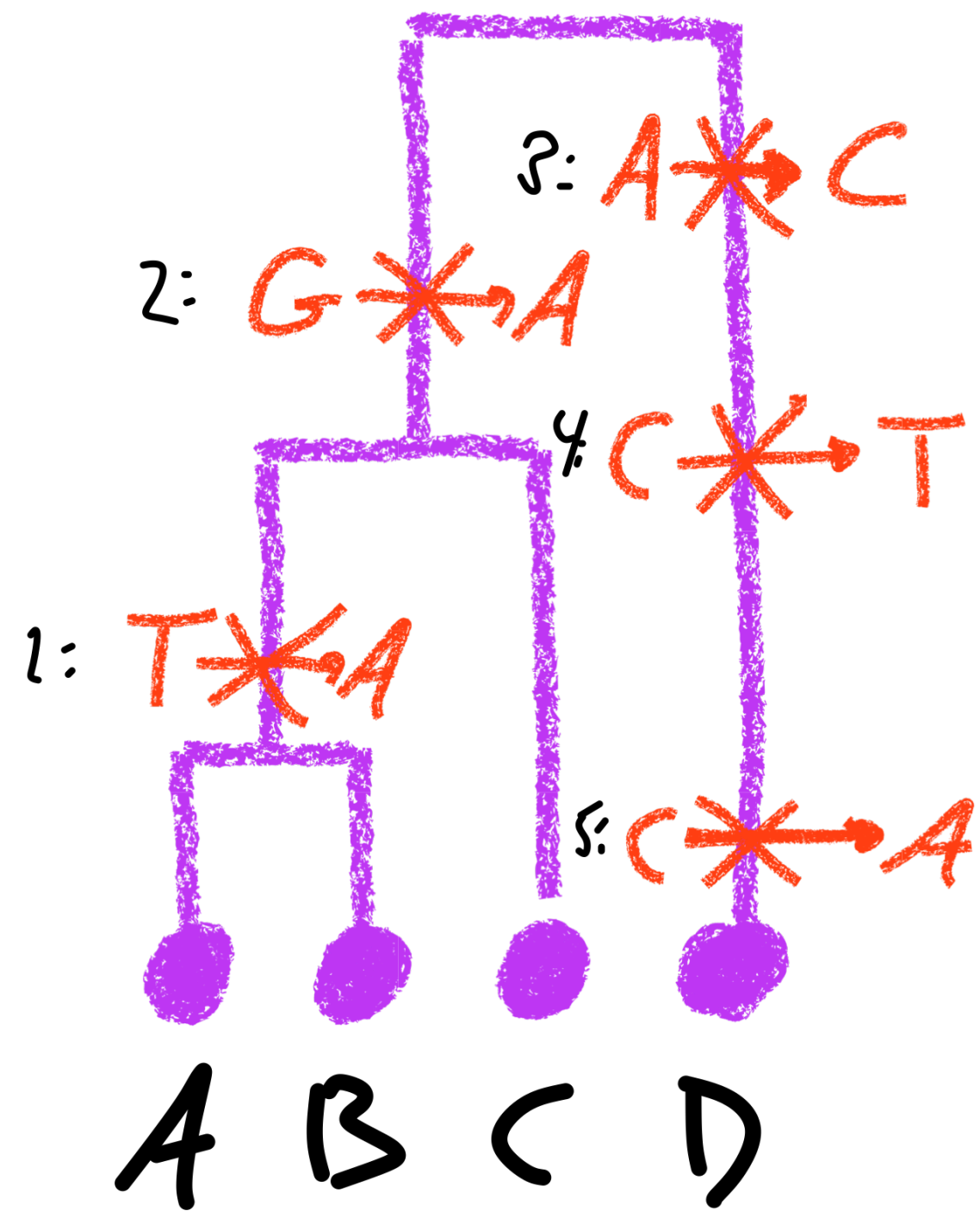


Example



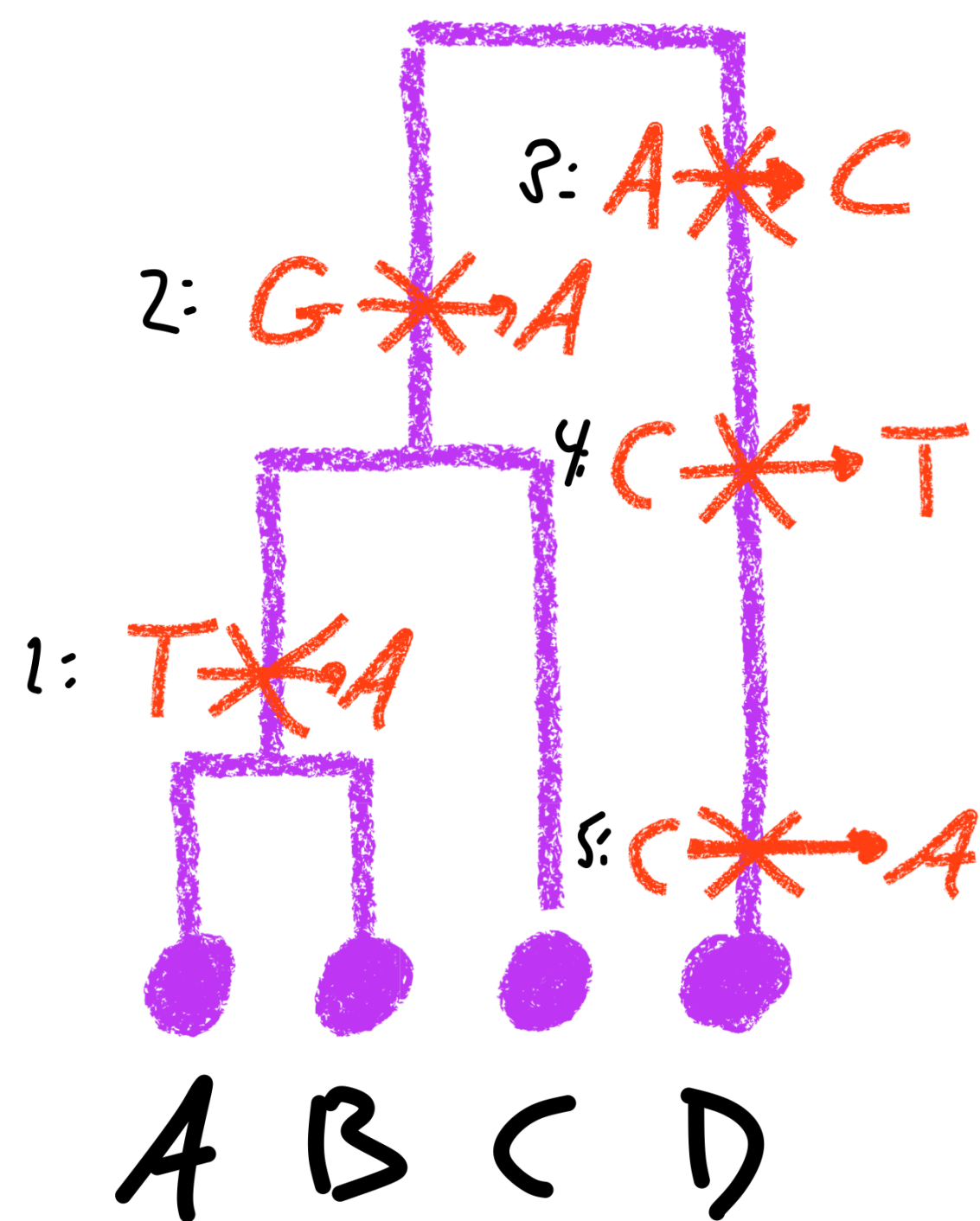
	1	2	3	4	5
A	A	A	A	C	C
B	A	A	A	C	C
C	T	A	A	C	C
D	T	G	C	T	A

$$S = 5$$

$$\pi = \frac{1}{\binom{4}{2}} (0 + 1 + 5 + 1 + 5 + 4) = \frac{8}{3}$$

$$D = \frac{5}{1 + \frac{1}{2} + \frac{2}{3}} - \frac{8}{3} = \dots \frac{2}{33}$$

Example: sample frequency spectrum (SFS)



	1	2	3	4	5
A	A	A	A	C	C
B	A	A	A	C	C
C	T	A	A	C	C
D	T	G	C	T	A

SFS: histogram of mutant allele frequencies

$$\bar{z} = [z_1, z_2, \dots, z_{n-1}], \quad z_i = \text{\# mutations with frequency } i \text{ in sample}$$

