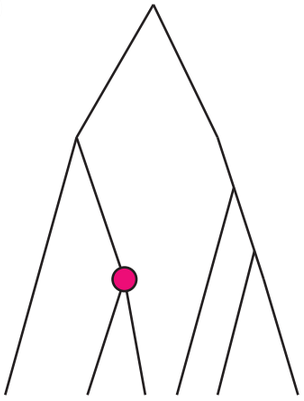
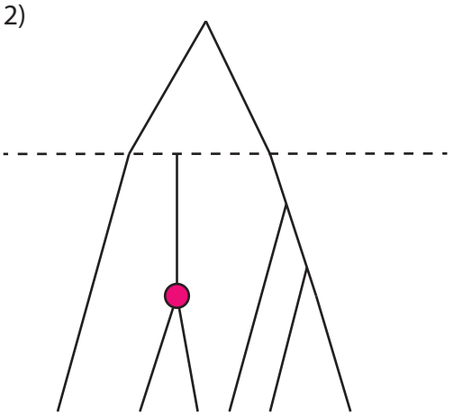
1)



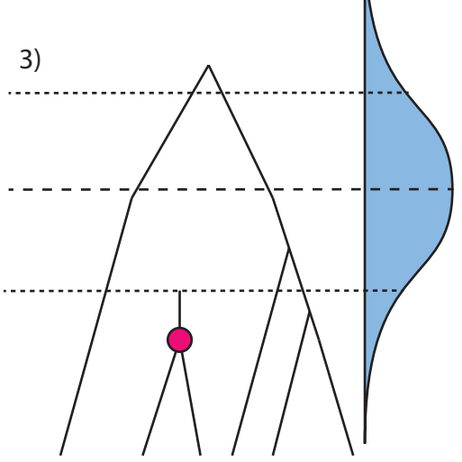
Pick a node

2)



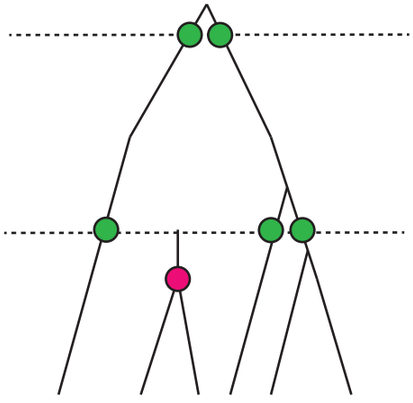
Disconnect its parent

3)



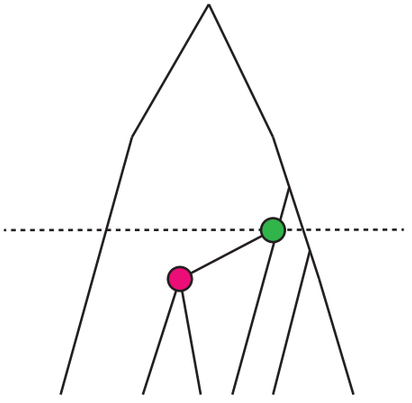
Draw a new height from a normal centred on old height of parent. Also consider the symmetrical height above or below the old height.

4)



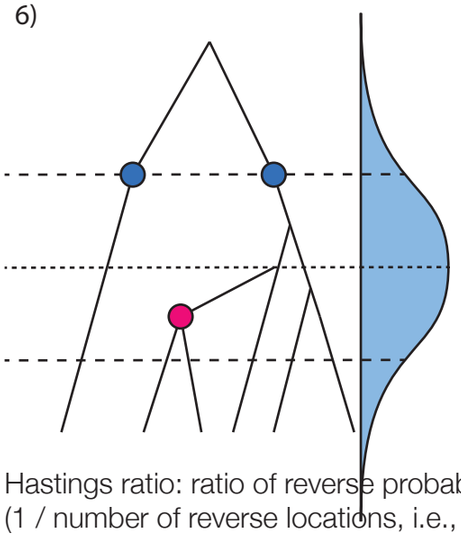
Pick uniformally from branches subtending that height and the symmetrical height above or below (in this case 5).

5)



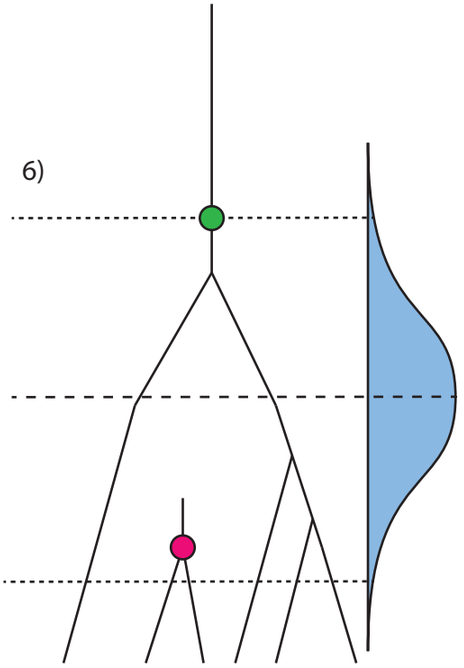
Attach parent to the chosen location.

6)



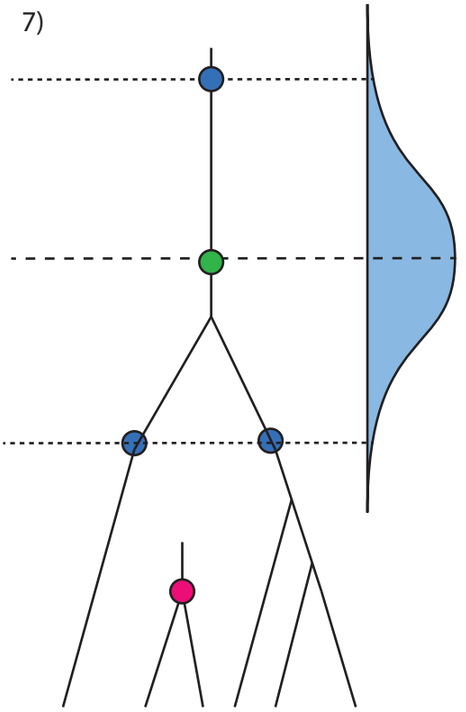
Hastings ratio: ratio of reverse probability (1 / number of reverse locations, i.e., 1/2) to forwards probability (i.e., 1/5).
Hastings ratio = 5 / 2

6)



There is always at least 1 target location (above the root).

7)



In this case the HR would be 1/3