



Label the following groups on the tree (or state the number that defines the monophyletic clade)

- Non-vertebrate chordates
- Jawless vertebrates
- Lobe finned fish
- Tetrapods
- Amniotes
- Reptiles
- Mammals
- "Fish"

Identify the location where each trait belongs on the tree above and describe the function/advantage that it provides

- limbs
- jaws
- sturdy rib cage
- notochord
- nipples
- pharyngeal clefts/slits
- hair
- thumb
- milk/mammary glands
- amniotic egg
- dorsal, hollow nerve cord
- muscular post-anal tail
- neural crest cells
- bony vertebrae
- neck
- teeth
- lungs (or their derivatives)
- fleshy fins
- placenta
- grasping hands
- development completely in uterus
- keratin
- genome duplication
- cranium/skull
- digits
- pelvis fused to spine