QUESTION:
Differentiate between centripetal acceleration and angular accelleration

ANSWER:
As velocity is a vector quantity, it can change either in magnitude or direction. In order to change a velocity vector acceleration must be applied. Hence, we can decompose the acceleration vector into two components: **the tangential component a_t is due to the change in the magnitude of the velocity** of traversal, and points in the direction of the velocity vector (or in the opposite direction). The centripetal component a_c is due **to the change in direction of the velocity vector** and is normal to the trajectory, pointing toward the center of curvature of the path.