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Question:

Define centripetal and tangential acceleration.

Answer:

Centripetal acceleration:

The centripetal acceleration is the rate of change of tangential velocity. When an object is moving with uniform acceleration in circular direction, it is said to be experiencing the centripetal acceleration.

Tangential acceleration:

Tangential acceleration is a measure of how the tangential velocity of a point at a certain radius changes with time.

Tangential acceleration is just like linear acceleration, but it's particular to the tangential direction, which is relevant to circular motion.