

A related rates example

You are the camera operator for a movie production. For a particular scene, you will be filming from the edge of a cliff top as a stunt person falls past you having jumped from a helicopter far above. The stunt person will pass by you 100 meters away with a vertical speed of 55 m/s. Your camera is mounted on a tripod and you will be rotating the camera vertically to keep it aimed at the stunt person. How fast will you be rotating the camera at the time the stunt person is level with the camera?