A symmetric top started spinning about a vertical axis. In order for it not to topple over, it must be set spinning sufficiently fast. How fast is sufficiently fast? Provide representative sketches for the effective potential $V(\theta)$ for the case of stable and unstable motion. When the top is not spinning fast enough to remain spinning in the vertical position, it starts nutating. Find the limit angles θ_1 and θ_2 for the nutation motion.