1. On a point on the Earth at latitude $\theta_{\text {lat }}$, a ball is released at rest from the top of a building of height $H$. In which direction will the ball be deflected by the Coriolis force? Is the direction of deflection the same in both Northern and Southern hemispheres? What is the magnitude of the deflection by the time the ball reaches the ground? Give an answer, in centimeters, for a ball dropped from the top of the Utah State Capitol building.
