
$$\frac{1}{9} \quad g_{\text{rel}} = 9.780327 (1 + 0.005279 \sin^2 \gamma + 0.000023 \sin^4 \gamma)$$

$$\text{At } \gamma = 45^\circ, \quad \underline{g_{\text{rel}} = 9.806 \text{ m/s}^2}$$

$$\begin{aligned} g_{\text{abs}} &= g_{\text{rel}} + 0.03382 \cos^2 \gamma \\ &= 9.806198 + 0.03382 \cos^2 45^\circ \\ &= \underline{9.823 \text{ m/s}^2} \end{aligned}$$