



$$\begin{aligned}\sigma_A^2 &\approx \left(\frac{\partial A}{\partial b}\right)^2 \sigma_b^2 + \left(\frac{\partial A}{\partial a}\right)^2 \sigma_a^2 + \left(\frac{\partial A}{\partial \alpha}\right)^2 \sigma_\alpha^2 \\ &= \left(\frac{1}{2}a \sin \alpha\right)^2 \sigma_b^2 + \left(\frac{1}{2}b \sin \alpha\right)^2 \sigma_a^2 \\ &\quad + \left(\frac{1}{2}ab \cos \alpha\right)^2 \sigma_\alpha^2\end{aligned}$$

HV13 $a = 10 \text{ m}; \sigma_a = 0.01 \text{ m}$
 $b = 15 \text{ m}; \sigma_b = 0.02 \text{ m}$
 $\alpha = 70 \text{ gon}; \sigma_\alpha = 0.001 \text{ gon}$

$$\begin{aligned} \sigma_A^2 &\approx \left(\frac{1}{2} \cdot 10 \cdot \sin\left(\alpha \frac{\pi}{200}\right) \right)^2 0.02^2 + \left(\frac{1}{2} \cdot 15 \cdot \sin\left(\alpha \frac{\pi}{200}\right) \right)^2 0.01^2 \\ &\quad + \left(\frac{1}{2} \cdot 10 \cdot 15 \cdot \cos\left(\alpha \frac{\pi}{200}\right) \right)^2 0.001^2 \text{ gon}^2 \left(\frac{\pi}{200} \right)^2 \\ &= 25 \cdot \sin^2\left(\frac{7\pi}{20}\right) \cdot 0.02^2 + (7.5)^2 \cdot \sin^2\left(\frac{7\pi}{20}\right) \cdot 0.01^2 + (75)^2 \cos^2\left(\frac{7\pi}{200}\right) \cdot 0.001^2 \left(\frac{\pi}{200} \right)^2 \\ &= 0.01269 \text{ m}^4 \end{aligned}$$

$$\underline{\underline{\sigma_A \approx 0.11265 \text{ m}^2}}$$