

Supplemental Problem 1

$$(a) \quad A = 243.89 \pm 0.05 \text{ ft}$$

$$B = 208.65 \pm 0.04 \text{ ft}$$

$$\begin{aligned} \text{Area} &= 243.89 \times 208.65 \\ &= 50887.6485 = 50888 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} E_{\text{prop}} &= \pm \sqrt{(243.89)^2 (0.04)^2 + (208.65)^2 (0.05)^2} \\ &= \pm 14.3 \text{ ft}^2 \end{aligned}$$

$$(b) \quad A = 660.23 \pm 0.012 \text{ ft}$$

$$B = 1425.67 \pm 0.013 \text{ ft}$$

$$\begin{aligned} \text{Area} &= 660.23 \times 1425.67 \\ &= 941270 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} E_{\text{prop}} &= \pm \sqrt{(660.23)^2 (0.013)^2 + (1425.67)^2 (0.012)^2} \\ &= \pm 19.1 \text{ ft}^2 \end{aligned}$$

(c) $A = 304,206 \pm 0,005 \text{ m}$

$B = 758,234 \pm 0,006 \text{ m}$

$$\text{Area} = 304,206 \times 758,234$$
$$= 230659 \text{ m}^2$$

$$E_{\text{prod}} = \pm \sqrt{(304,206)^2 (0,006)^2 + (758,234)^2 (0,005)^2}$$
$$= \pm 412 \text{ m}^2$$
