

Scanned Documents

Asst. Professor
 Mathematics
 Electrical and Electronics Engineering
 Engineering Mathematics

Err of measuring a and b is $\pm 3\%$

$$= \pm 3\%$$

$$= \pm 0.03$$

Area of the triangle = $\frac{1}{2} ab$ = $\frac{ab}{2}$

$$dA = \frac{\partial A}{\partial a} \cdot da + \frac{\partial A}{\partial b} \cdot db$$

$$= \frac{b}{2} \cdot da + \frac{a}{2} \cdot db$$

$$= \frac{b}{2} [10 \cdot 0.03] + \frac{a}{2} [10 \cdot 0.03]$$

Perimeter

$$A = ab$$

$$dA = 10 \times 0.03 \times 10 [10 \cdot 0.03]$$

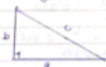
$$= A [10 \cdot 0.03 + 10 \cdot 0.03]$$

$$= 200 \times 0.03$$

$$dA = \pm 6 \text{ or } \pm 0.03A$$

$$dA = \pm 6 \text{ or } \pm 3\% \text{ or } \pm 0.03A$$

40. Verify by hypothesis c



Area of the

Perimeter of

$$dA =$$

$$\frac{\partial A}{\partial a} \cdot da$$

$$\frac{\partial A}{\partial b} \cdot db$$

$$\therefore d$$

$$= \pm$$

$$0$$

$$=$$

$$=$$

$$=$$

$$=$$

Perimeter