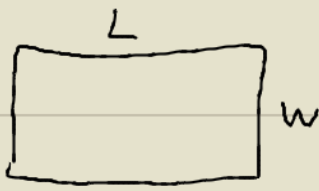


1.



$$A = LW$$

$$P = 2L + 2W$$

$$16 = 2L + 2W$$

$$16 - 2W = 2L$$

$$\frac{16}{2} - \frac{2}{2}W = \frac{2}{2}L$$

$$8 - W = L$$

MAXIMIZE AREA

$$A = LW$$

$$A = (8 - W)W$$

$$A = 8W - W^2$$

$$\frac{dA}{dW} = 8 - 2W$$

$$8 - 2W = 0$$

$$8 = 2W$$

$$\frac{8}{2} = \frac{2}{2}W$$

$$4 = W$$

	m	W=4	m
T.C.	W=1	W=5	
PLUG INTO DERIV.	$8 - 2(1)$	$8 - 2(5)$	
	/	max	\

MAX AT W=4

$$L = 8 - W$$

$$L = 8 - 4$$

$$\underline{L = 4}$$