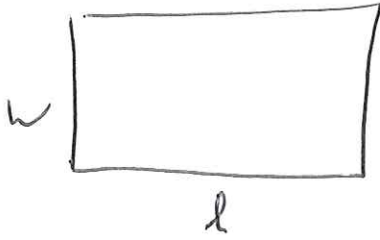


2)



$$\frac{dl}{dt} = 5 \text{ cm/sec}$$

$$\frac{dw}{dt} = -4 \text{ cm/sec}$$

find $\frac{dA}{dt}$ when $l=10$ and $w=20$.

$$A = lw$$

$$\frac{dA}{dt} = w \frac{dl}{dt} + l \frac{dw}{dt}$$

$$\frac{dA}{dt} = 20(5) + 10(-4) = 100 - 40 = 60 \text{ cm}^2/\text{sec}$$