

$$14. \int_C (3x+y) dx + (x+2y) dy$$

$$\int_0^1 [3 \cdot (3t) + 0] 3 dt + [3t + 2(0)] 0 dt$$

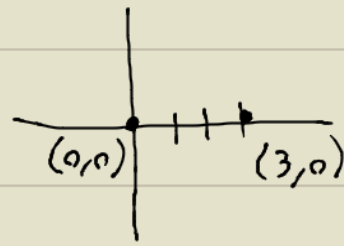
$$= 27 \int_0^1 t dt$$

$$= 27 \left[\frac{1}{2} t^2 \right]_0^1$$

$$= \frac{27}{2} [1^2 - 0^2]$$

$$= \left(\frac{27}{2} \right)$$

C: X-AXIS from
 $x=0$ to $x=3$



$$x(t) = 3t \quad y(t) = 0 \quad 0 \leq t \leq 1$$

$$dx = 3 dt \quad dy = 0 dt$$