

$$\int \frac{1}{x \cdot \sqrt{x-1}} dx = \int \frac{1}{(t^2+1)\sqrt{t^2}} 2t dt =$$

CAMBIO VARIABLE
 $x-1 = t^2 \rightarrow x = t^2+1$
 $dx = 2t dt$
c.v.

$$= 2 \int \frac{\cancel{t}}{(t^2+1)\cancel{t}} dt =$$

$$= 2 \int \frac{1}{1+t^2} dt = 2 \operatorname{arc.tg}(t) + C =$$

DESHECER
c.v.
 $t = \sqrt{x-1}$

$$= 2 \operatorname{arc.tg}(\sqrt{x-1}) + C$$