

# Random Math

induction-stove

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$$x = \int_0^x 1 \, dt$$

$$x^2 = \int_0^x 2t \, dt$$

$$y = \int_0^y 1 \, dt$$

$$y^2 = \int_0^y 2t \, dt$$

$$x + y = \int_0^{x+y} 1 \, dt = \int_0^x 1 \, dt + \int_x^{x+y} 1 \, dt$$

$$(x + y)^2 = \int_0^{(x+y)} 2t \, dt$$

$$u = 2t$$

$$\therefore \frac{du}{2} = dt$$