

$$y' = x^{-2}, y(1) = 0$$

Integrate both sides:

$$y = \int x^{-2} dx = -x^{-1} + C$$

Apply initial condition:

$$y(1) = -(1)^{-1} + C = 0$$

$$\rightarrow C = 1$$

$$\text{so, } \boxed{y = -\frac{1}{x} + 1}$$