

$$y = x\sqrt{1-2x}$$

$$u = x$$

$$\frac{du}{dx} = 1$$

$$v = (1-2x)^{\frac{1}{2}}$$

$$\frac{dv}{dx} = -\frac{1}{\sqrt{1-2x}}$$

$$\frac{dy}{dx} = u \frac{dv}{dx} + v \frac{du}{dx}$$

$$= -x \cdot \frac{1}{\sqrt{1-2x}} + \sqrt{(1-2x)}$$

Not sure where to simplify here:-)