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Derivadas Inversas

10. $f(x) = 2 \operatorname{arc\,sec} \sqrt{x}$

$f'(x) = \frac{d}{dx}(2 \operatorname{arc\,sec}(\sqrt{x}))$

$f'(x) = 2\left(\frac{d}{dx}(\operatorname{arc\,sec}(\sqrt{x}))\right)$

$f'(x) = 2\left(\frac{d}{d\sqrt{x}}(\operatorname{arc\,sec}(\sqrt{x}))\right)\left(\frac{d}{dx}(\sqrt{x})\right)$

$f'(x) = \frac{1}{x\sqrt{x-1}}$

11. $y = \operatorname{arc\,sen}(3 - x^2)$

$y' = \frac{d}{dx}(\operatorname{arc\,sen}(3-x^2))$

$y' = \frac{d}{dg}(\operatorname{arc\,sen}(g))\left(\frac{d}{dx}(3-x^2)\right)$

$y' = \frac{1}{\sqrt{1-g^2}}(-2x)$

$y' = \frac{1}{\sqrt{1-(3-x^2)^2}}(-2x)$

$y' = \frac{-2x}{\sqrt{-x^4+6x^2-8}}$

12. $y = \arccos\sqrt{1-x^2}$

$y' = \frac{d}{dx}(\arccos(\sqrt{1-x^2}))$

$y' = \frac{d}{dy}(\arccos(y))(\frac{d}{dx}(\sqrt{1-x^2}))$

$y' = \frac{1}{\sqrt{1-y^2}}(\frac{1}{2\sqrt{1-x^2}}(-2x))$

$y' = \frac{x}{|x|\sqrt{1-x^2}}$

13. $y = x^2 \arctan x$

$y' = \frac{d}{dx}(x^2(\arctan(x)))$

$y' = \frac{d}{dx}(x^2)(\arctan(x)+x^2)(\frac{d}{dx}(\arctan(x)))$

$y' = 2x(\arctan(x)+\frac{x^2}{1+x^2})$