

Pochodne funkcji prostych

$$(a x^m)' = am x^{m-1}$$

$$(a^x)' = a^x \ln(a)$$

$$(\log_a x)' = 1 / [x \ln(a)]$$

$$(\log_x x)' = 0$$

$$(x^x)' = x^x [\ln(x) + 1]$$

$$(\log_x a)' = - \ln(a) / \{x[\ln(x)]^2\}$$

$$(\sin x)' = \cos x$$

$$(\cos x)' = - \sin x$$

$$(\operatorname{tg} x)' = 1 + (\operatorname{tg} x)^2$$

$$(\operatorname{ctg} x)' = - [1 + (\operatorname{tg} x)^2]$$

$$(\sec x)' = (\operatorname{tg} x) (\sec x)$$

$$(\operatorname{cosec} x)' = - (\operatorname{ctg} x) (\operatorname{cosec} x)$$

$$(\sinh x)' = \cosh x$$

$$(\cosh x)' = \sinh x$$

$$(\operatorname{tgh} x)' = 1 / (\cosh x)^2$$

$$(\operatorname{ctgh} x)' = - 1 / (\sinh x)^2$$

$$(\operatorname{sech} x)' = - (\operatorname{tgh} x) (\operatorname{sech} x)$$

$$(\operatorname{cosech} x)' = - (\operatorname{ctgh} x) (\operatorname{cosech} x)$$

$$(\operatorname{arc} \sin x)' = 1 / \sqrt{1 - x^2}$$

$$(\operatorname{arc} \cos x)' = - 1 / \sqrt{1 - x^2}$$

$$(\operatorname{arc} \operatorname{tg} x)' = 1 / (1 + x^2)$$

$$(\operatorname{arc} \operatorname{ctg} x)' = - 1 / (1 + x^2)$$

$$(\operatorname{arc} \sec x)' = 1 / [x \sqrt{x^2 - 1}]$$

$$(\operatorname{arc} \operatorname{cosec} x)' = - 1 / [x \sqrt{x^2 - 1}]$$

$$(\operatorname{area} \sinh x)' = 1 / \sqrt{x^2 + 1}$$

$$(\operatorname{area} \cosh x)' = 1 / \sqrt{x^2 - 1}$$

$$(\operatorname{area} \operatorname{tgh} x)' = 1 / (1 - x^2)$$

$$(\operatorname{area} \operatorname{ctgh} x)' = 1 / (x^2 - 1)$$

$$(\operatorname{area} \operatorname{sech} x)' =$$

$$= -1 / \{x (x + 1) \sqrt{[(1 - x) / (1 + x)]}\}$$

$$(\operatorname{ar} \operatorname{cosech} x)' = -1 / [x^2 \sqrt{1 + 1 / x^2}]$$

$$(g + h)' = g' + h'$$

$$(g h)' = g' h + g h'$$

$$(g / h)' = (g' h - g h') / h^2$$

$$(g(h))' = g' h'$$