

## OSNOVNA PRAVILA DERIVIRANJA

<p>1) <math>y = c</math>                  2) <math>y = x</math>                  3) <math>y = u \pm v</math>                  4) <math>y = c \cdot f(x)</math>  <i>c</i> je konstanta (broj)  <i>x</i> je varijabla  <i>u, v</i> su složene varijable</p>	<p><math>y' = 0</math>  <math>y' = 1</math>  <math>y' = u' \pm v'</math>  <math>y' = c \cdot f'(x)</math></p>	<p>5) <math>y = \frac{u}{c}</math>                  6) <math>y = u \cdot v</math>                  7) <math>y = \frac{u}{v}</math>                  8) <math>y = \frac{c}{u}</math></p>	<p><math>y' = \frac{1}{c} \cdot u'</math>  <math>y' = u' \cdot v + u \cdot v'</math>  <math>y' = \frac{u' \cdot v - u \cdot v'}{v^2}</math>  <math>y' = -\frac{c \cdot u'}{u^2}</math></p>
---	---	---	--

## TABLICA DERIVACIJA

<i>OSNOVNE</i>		<i>SLOŽENE</i>	
1) $y = c \cdot x$	$y' = c$	1) $y = c \cdot u$	$y' = c \cdot u'$
2) $y = x^n$	$y' = nx^{n-1}$	2) $y = u^n$	$y' = n \cdot u^{n-1} \cdot u'$
3) $y = \sqrt{x}$	$y' = \frac{1}{2\sqrt{x}}$	3) $y = \sqrt{u}$	$y' = \frac{1}{2\sqrt{u}} \cdot u'$
4) $y = \sqrt[n]{x}$	$y' = \frac{1}{n\sqrt[n]{x^{n-1}}}$	4) $y = \sqrt[n]{u}$	$y' = \frac{1}{n\sqrt[n]{u^{n-1}}} \cdot u'$
5) $y = \sin x$	$y' = \cos x$	5) $y = \sin u$	$y' = \cos u \cdot u'$
6) $y = \cos x$	$y' = -\sin x$	6) $y = \cos u$	$y' = -\sin u \cdot u'$
7) $y = \tan x$	$y' = \frac{1}{\cos^2 x}$	7) $y = \tan u$	$y' = \frac{1}{\cos^2 u} \cdot u'$
8) $y = \cot x$	$y' = -\frac{1}{\sin^2 x}$	8) $y = \cot u$	$y' = -\frac{1}{\sin^2 u} \cdot u'$
9) $y = \arcsin x$	$y' = \frac{1}{\sqrt{1-x^2}}$	9) $y = \arcsin u$	$y' = \frac{1}{\sqrt{1-u^2}} \cdot u'$
10) $y = \arccos x$	$y' = -\frac{1}{\sqrt{1-x^2}}$	10) $y = \arccos u$	$y' = -\frac{1}{\sqrt{1-u^2}} \cdot u'$
11) $y = \arctan x$	$y' = \frac{1}{1+x^2}$	11) $y = \arctan u$	$y' = \frac{1}{1+u^2} \cdot u'$
12) $y = \text{arc cot } x$	$y' = -\frac{1}{1+x^2}$	12) $y = \text{arc cot } u$	$y' = -\frac{1}{1+u^2} \cdot u'$
13) $y = c^x$	$y' = c^x \ln c$	13) $y = c^u$	$y' = c^u \ln c \cdot u'$
14) $y = e^x$	$y' = e^x$	14) $y = e^u$	$y' = e^u \cdot u'$
15) $y = \ln x$	$y' = \frac{1}{x}$	15) $y = \ln u$	$y' = \frac{1}{u} \cdot u'$
16) $y = \log_c x$	$y' = \frac{1}{x \ln c}$	16) $y = \log_c u$	$y' = \frac{1}{u \cdot \ln c} \cdot u'$
17) $y = \sinh x$	$y' = \cosh x$	17) $y = \sinh u$	$y' = \cosh u \cdot u'$
18) $y = \cosh x$	$y' = \sinh x$	18) $y = \cosh u$	$y' = \sinh u \cdot u'$
19) $y = \tanh x$	$y' = \frac{1}{\cosh^2 x}$	19) $y = \tanh u$	$y' = \frac{1}{\cosh^2 u} \cdot u'$
20) $y = \text{coth } x$	$y' = -\frac{1}{\sinh^2 x}$	20) $y = \text{coth } u$	$y' = -\frac{1}{\sinh^2 u} \cdot u'$