

Calcul de la fonction $y'(x)$

Si $x > 1$: $W'(x) = W(x)/(x*(1+W(x)))$

$y(x) = \ln(x)/W(\ln(x)) = (\ln(x))*(1/W(\ln(x)))$

$y'(x) = (\ln(x))'*(1/W(\ln(x)))+\ln(x)*(1/W(\ln(x)))'$

$y'(x) = (1/x)*(1/W(\ln(x)))+\ln(x)*(-1/((W(\ln(x))^2)*(W(\ln(x)))'$

$y'(x) = 1/(x*W(\ln(x)))-(\ln(x)/((W(\ln(x))^2)*(W(\ln(x)))'$

$y'(x) = 1/(x*W(\ln(x)))-(\ln(x)/((W(\ln(x))^2)*(W(\ln(x)))/(\ln(x)*(1+W(\ln(x)))*(ln(x))'))$

$y'(x) = 1/(x*W(\ln(x)))-(\ln(x)/(W(\ln(x)))/((\ln(x)*(1+W(\ln(x)))*(ln(x))'))$

$y'(x) = 1/(x*W(\ln(x)))-1/(W(\ln(x))*(1+W(\ln(x)))*(ln(x))')$

$y'(x) = 1/(x*W(\ln(x)))-1/(x*W(\ln(x))*(1+W(\ln(x))))$

$y'(x) = W(\ln(x))/(x*W(\ln(x))*(1+W(\ln(x))))$

$y'(x) = 1/(x*(1+W(\ln(x))))$