

Quiz Preparation

Tuesday, October 05, 2010

10:13 AM

#1-4 Derivatives for fns involving logs

$$\text{If } y = \log_a u, \text{ then } y' = \frac{du}{u \ln a}$$

#5-8 Derivatives for fns with inverse trig

1) Convert to orig trig fn, create approp. Rt Δ
2) Impl. Diff.

3) Solve for y'

4) make Δ substitutions so y' is all in terms of x

#9,10 $y = f(x)^{g(x)}$ use log diff.

1) $\ln y = g(x) \cdot \ln(f(x))$

2) Imp. diff (product rule)

3) Solve for y' (cross mult.)

4) Resubst. for original $y = f(x)^{g(x)}$

#11,12 Create eqns of tang/normal lines to $y = f(x)$ $\left\{ \begin{array}{l} \text{log} \\ \text{inv. trig} \end{array} \right.$