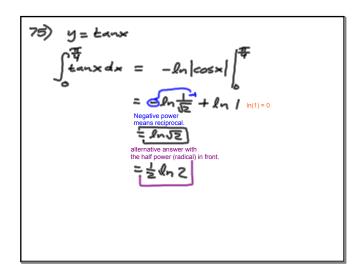


$$55) \int_{1}^{e} \frac{(1+\theta_{n}x)^{2}}{x} dx du = \frac{1}{2} dx$$

$$= \int_{1}^{2} u^{2} du = \frac{1}{3} u^{3} \int_{1}^{2} = \frac{1}{3} (8-i) = \frac{7}{3}$$



77)
$$y = x + \frac{4}{x}$$

 $\int_{1}^{4} (x + \frac{4}{x}) dx$
 $\frac{1}{2} x^{2} + 4 R_{n} x \Big|_{1}^{4} = \left[\frac{1}{2} (4)^{2} + 4 R_{n} 4\right] - \left[\frac{1}{2} (5)^{2} + 4 R_{n} 4\right]$
 $= 8 + 4 R_{n} 4 - \frac{1}{2}$
 $\frac{15}{2} + 8 R_{n} 2$

