5.2.1

Q5b $f(t) = \ln\left[\frac{t-1}{3t+5}\right]$ Find $f'(5)$

$f(t) = \ln(t-1) - \ln(3t+5)$

$f'(t) = \frac{1}{t-1} - \frac{3}{3t+5}$

$f'(5) = \frac{1}{4} - \frac{3}{20}$ $\therefore f'(5) = \frac{2}{20}$

$= \frac{5}{20} - \frac{3}{20}$ $= \frac{1}{10}$

Q13a $f(x) = \ln[\ln x]$ Find $f'(x)$

blup

$f'(x) = \frac{\frac{1}{x}}{\ln x}$

$= \frac{1}{x} \cdot \frac{1}{\ln x}$

$= \frac{1}{x \ln x}$