


<p>1 $2\ln(x) - \ln(4)$ $\ln(x^2) - \ln(4)$ $\ln\left(\frac{x^2}{4}\right)$</p>	<p>2 $2\ln(x) + \ln(4)$ $\ln(x^2) + \ln(4)$ $\ln(4x^2)$</p>	<p>3 $2\ln(x) + 3\ln(y) + 4\ln(z)$ $\ln(x^2) + \ln(y^3) + \ln(z^4)$ $\ln(x^2 y^3 z^4)$</p>
<p>4 $\ln(x^2 - 25) - \ln(x + 5)$ $\ln\left(\frac{x^2 - 25}{x + 5}\right)$ $\ln\left[\frac{(x-5)\cancel{(x+5)}}{\cancel{(x+5)}}\right] \rightarrow \ln(x-5)$</p>	<p>5 $\ln(x+2) - \ln(3x+6)$ $\ln\left(\frac{x+2}{3x+6}\right) \rightarrow \ln\left(\frac{\cancel{x+2}}{3\cancel{(x+2)}}\right)$ $\ln\left(\frac{1}{3}\right)$</p>	<p>6 $\ln(x+2) + \ln(x+6)$ $\ln[(x+2)(x+6)]$ $\ln[x^2 + 8x + 12]$</p>

<p>7 $\frac{1}{2}\ln(9)$</p> <p>$\ln(9^{1/2}) \rightarrow \ln(\sqrt{9})$</p> <p>$\ln(3)$</p>	<p>8 $\ln(x^2-4x+3)-\ln(x-3)$</p> <p>$\ln\left[\frac{x^2-4x+3}{x-3}\right]$</p> <p>$\ln\left[\frac{(x-3)(x-1)}{(x-3)}\right] = \ln(x-1)$</p>	<p>9 $\ln(x-3)-\ln(x^2-4x+3)$</p> <p>$\ln\left[\frac{(x-3)}{(x^2-4x+3)}\right]$</p> <p>$\ln\left[\frac{(x-3)}{(x-3)(x-1)}\right] \rightarrow \ln\left(\frac{1}{x-1}\right)$</p>
<p>10 $\ln(2x^2+5x-3)-\ln(x+3)$</p> <p>$\ln\left[\frac{2x^2+5x-3}{x+3}\right] \rightarrow \ln\left[\frac{(2x-1)(x+3)}{(x+3)}\right]$</p> <p>$\ln[2x-1]$</p>	<p>11 $\ln(xy^2)+\ln(x^2y)-\ln(xy)$</p> <p>$\ln[(xy^2)(x^2y)] - \ln(xy)$</p> <p>$\ln[x^3y^3] - \ln(xy)$</p> <p>$\ln\left[\frac{x^3y^3}{xy}\right] \rightarrow \ln[x^2y^2]$</p>	<p>12 $\ln(x)+3[\ln(y)-\ln(4)]$</p> <p>$\ln(x)+3\ln(y)-3\ln(4)$</p> <p>$\ln(x)+\ln(y^3)-\ln(4^3)$</p> <p>$\ln(xy^3)-\ln(64)$</p>
<p>$2x^2+5x-3 \rightarrow \frac{(x-1)(x+6)}{2}$</p> <p>$x^2+5x-6 \rightarrow (x-1)(x+6)$</p> <p>$\begin{array}{r} -1 \quad -6 \\ \times \quad 6 \\ \hline -6 \quad 6 \\ \hline -1 \quad 0 \end{array}$</p>		<p>$\ln\left(\frac{xy^3}{64}\right)$</p>

<p>13 $\ln(x) - 3[\ln(y) - \ln(4)]$ $\ln(x) - 3\ln(y) + 3\ln(4)$ $\ln(x) - \ln(y^3) + \ln(4^3)$ $\ln\left[\frac{x}{y^3}\right] + \ln(64)$</p>	<p>14 $-\ln(x^3)$ $\ln[(x^3)^{-1}] \rightarrow \ln(x^{-3})$</p>	<p>15 </p>
<p>$\ln\left[\frac{64x}{y^3}\right]$</p>		