Transformation Handout

State the transformations that take the beginning function to the final function.

1. From $y = |x|$ to $y = -8|x + 4|$

2. From $y = \ln(x)$ to $y = \frac{\ln\left(\frac{1}{3}x\right)}{5}$
3. From $y = f(x)$ to $y = 4f(6x) - 1$

4. From $y = f(x)$ to $y = \frac{2}{3}(f(3x) - 5)$ \hspace{1cm} \textbf{hint:} Perform algebra first