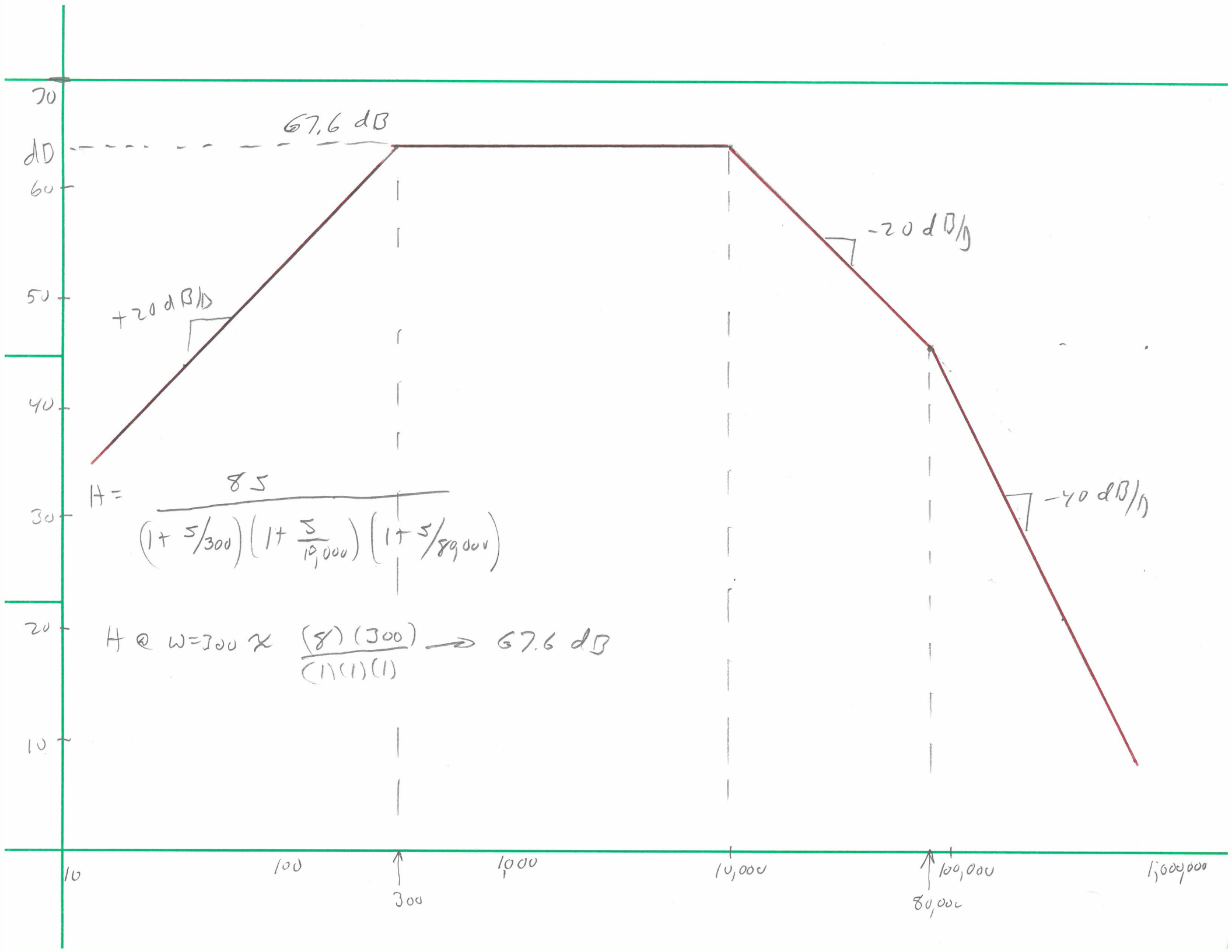
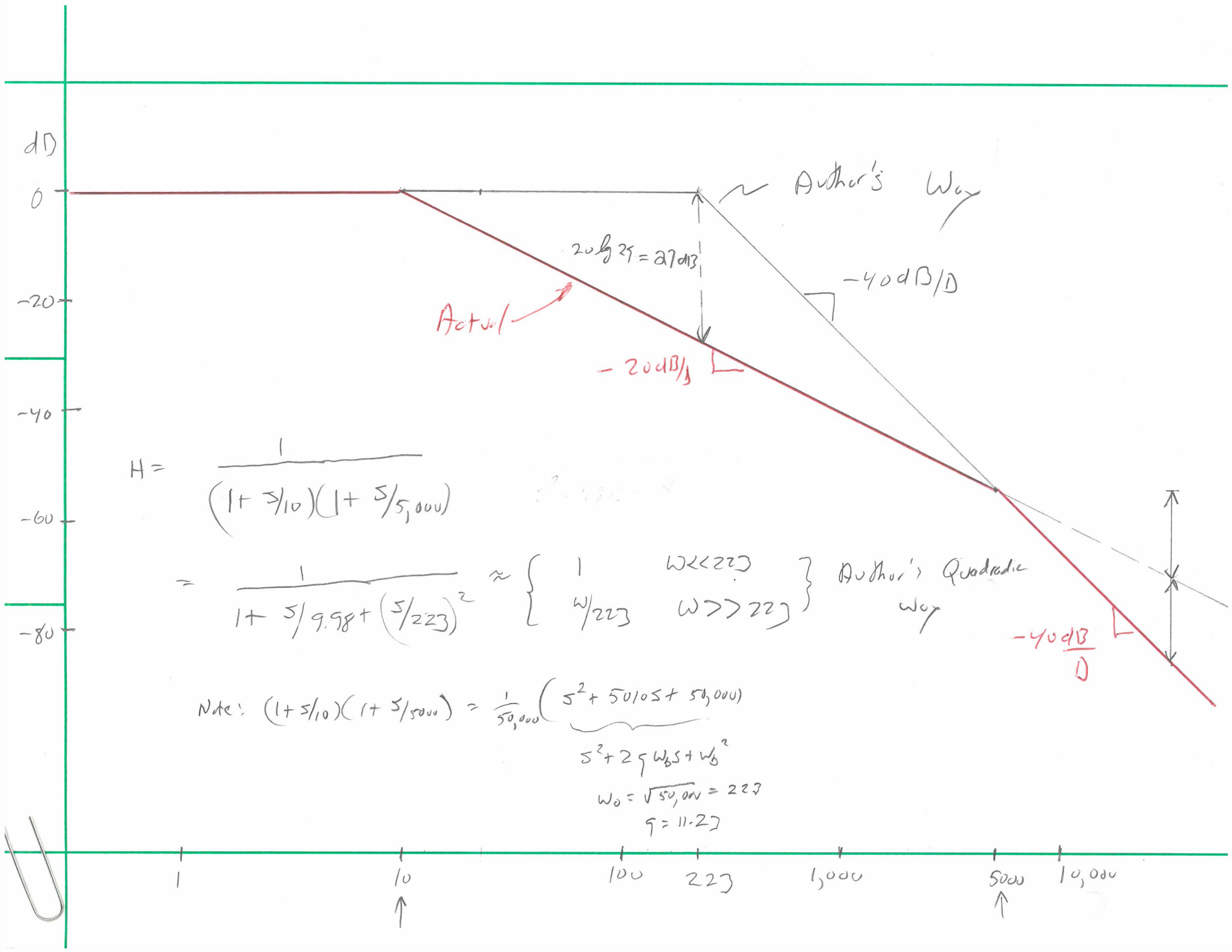

70
dB
60
50
40
30
20
10
67.6 dB
+20 dB/D
-20 dB/D
-40 dB/D
$H = \frac{85}{(1+s/300)(1+\frac{s}{10,000})(1+s/80,000)}$
H @ w=300 x $\frac{(8)(300)}{(1)(1)(1)}$ → 67.6 dB
10
100
300
1,000
10,000
80,000
100,000
1,000,000



$$H = \frac{1}{(1 + s/10)(1 + s/5{,}000)}$$

$$= \frac{1}{1 + s/9.98 + (s/223)^2} \approx \begin{cases} 1 & \omega << 223 \\ \omega/223 & \omega >> 223 \end{cases}$$ Author's Quadratic Way

Note: $(1 + s/10)(1 + s/5000) = \frac{1}{50{,}000}(s^2 + 5010s + 50{,}000)$

$s^2 + 2\zeta\omega_0 s + \omega_0^2$

$\omega_0 = \sqrt{50{,}000} = 223$

$\zeta = 11.23$