$$H\left(f_a\right)(dB) = -10\log_{10}\left(1+\left(\frac{f_a}{f_p}\right)^{2n}\right) \leq -38$$

$$10\log_{10}\left(1+\left(\frac{f_a}{f_p}\right)^{2n}\right) \geq 38$$

$$\Leftrightarrow 1+\left(\frac{f_a}{f_p}\right)^{2n} \geqslant 10^{\{38/10\}}$$

$$\left(\frac{f_a}{f_p}\right)^{2n} \geqslant 10^{\{38/10\}} - 1$$

$$10\log_{10}\left(\frac{f_a}{f_p}\right)^{2n} \geqslant 10\log_{10}\left[10^{3,8}-1\right] \approx 38$$

$$2n \cdot 10\log_{10}\left(\frac{f_a}{f_p}\right) \geqslant 38$$

$$n \geqslant \frac{38}{20\log_{10}\left(\frac{f_a}{f_p}\right)} = 4,75$$

$$\Rightarrow n = 5$$

$$20\log_{10}(u) = U$$
$$u = 10^{\{U/20\}}$$

3°) ↳ voir page 28