$V = IR$ $\tau = RC$ $f_c = \frac{1}{2\pi\tau}$

$P = VI = \frac{V^2}{R}$

$y = -4 = R(4E-7)$

$\frac{P_{out}}{P_{in}} = .5$ $\frac{V_{out}^2}{V_{in}^2} = .5$

$M(f_c) = \sqrt{.5} = .707$

$y = M(f_c)$ $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{y - y_1}{x - x_1}$

$x = x_1 + \frac{(x_2 - x_1)}{y_2 - y_1}(y - y_1)$

High Pass	Low Pass	Band pass
.0052	.814	.00574
.00916	.635	.00924
.02772	1.0062	.02752
.05584	.498	.05414
.11192	.971	.09972
.2172	.8884	.15482
.4002	.702	.19616
.6384	.4558	.19262
.8264	.2564	.16272
.9728	.13512	.11036