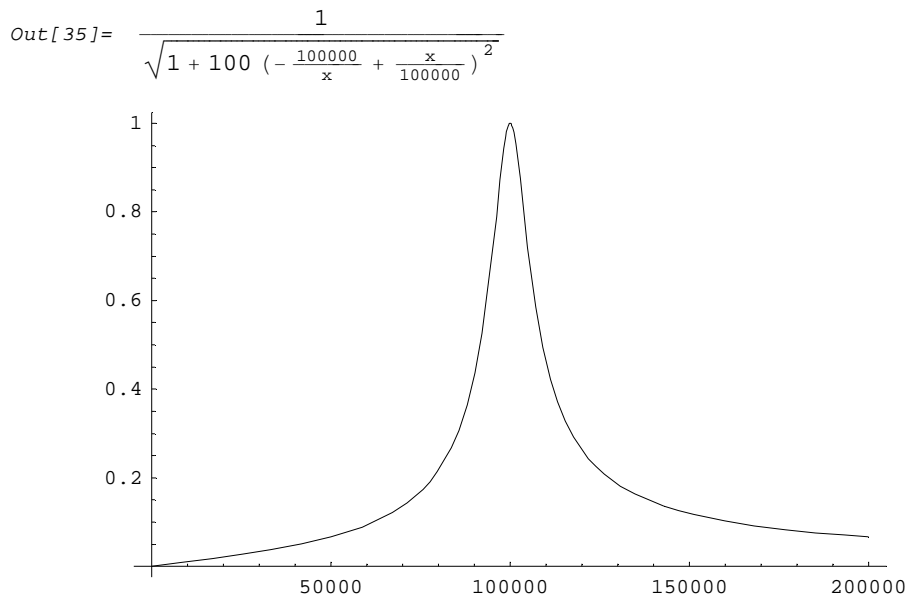


(a) krug -- 1 kΩ

$$f[x_] = 1 / \sqrt{(1 + 100 * ((x / 10^5) - (10^5 / x))^2)}$$

Plot[f[x], {x, -1, 2 * 10^5}]

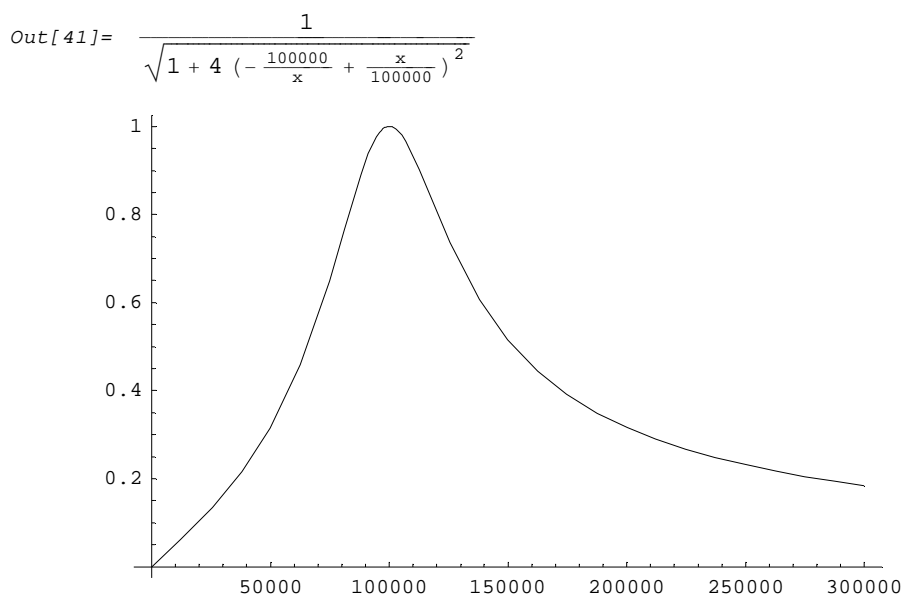


Out[36]= - Graphics -

In[40]:= (a) krug -- 200 Ω;

$$f[x_] = 1 / \sqrt{(1 + 4 * ((x / 10^5) - (10^5 / x))^2)}$$

Plot[f[x], {x, -1, 3 * 10^5}]



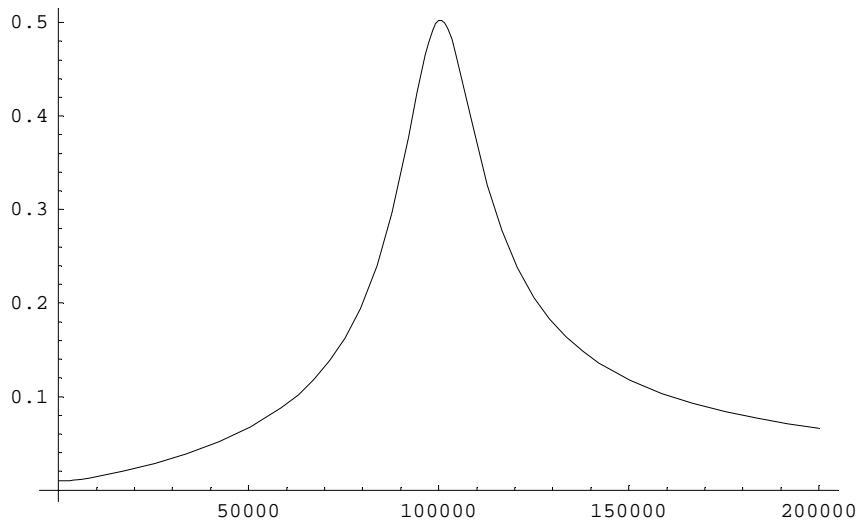
Out[42]= - Graphics -

In[49]:= (b) krug -- 1 kΩ

$$f[x_] = \sqrt{\left(\frac{10^{16} + 10^8 x^2}{4 \cdot 10^8 x^2 + (1.01 \cdot 10^{10} - x^2)^2} \right)}$$

Plot[f[x], {x, 0, 2*10^5}]

Out[50]=
$$\sqrt{\frac{10000000000000000 + 1000000000 x^2}{4000000000 x^2 + (1.01 \times 10^{10} - x^2)^2}}$$



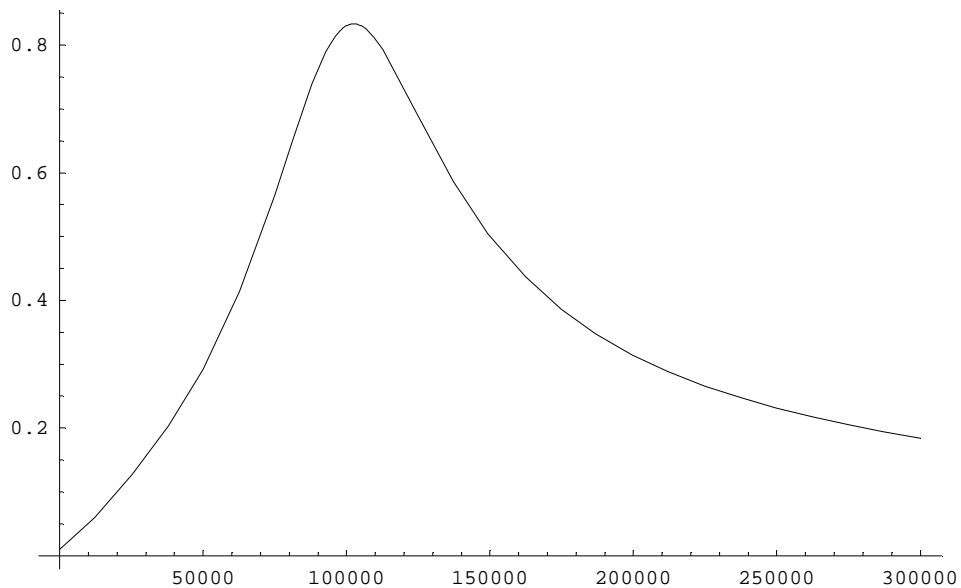
Out[51]= - Graphics -

In[55]:= (b) krug -- 200 Ω

$$f[x_] = \sqrt{\left(\frac{10^{16} + 25 \cdot 10^8 x^2}{36 \cdot 10^8 x^2 + (1.05 \cdot 10^{10} - x^2)^2} \right)}$$

Plot[f[x], {x, 0, 3*10^5}]

Out[56]=
$$\sqrt{\frac{10000000000000000 + 25000000000 x^2}{36000000000 x^2 + (1.05 \times 10^{10} - x^2)^2}}$$



Out[57]= - Graphics -