1. Osetljivost:

$$S_x^y = \lim_{\Delta x \to 0} \frac{\frac{\Delta y}{y}}{\frac{\Delta x}{x}} = \frac{\partial y}{\partial x}\frac{x}{y}$$

2. THD

2.1. Linearan sistem

$$y = 10x$$
$$x = \cos(\omega t)$$
$$y = 10\cos(\omega t)$$

2.2. Nelinearan sistem

$$y = 10x + 0.1x^2$$
$$x = \cos(\omega t)$$
$$y = 10\cos(\omega t) + 0.1\cos^2(\omega t)$$
$$y = 10\cos(\omega t) + 0.1\left(\frac{1+\cos(2\omega t)}{2}\right) = 0.05 + 10\cos(\omega t) + 0.05\cos(2\omega t)$$
$$y = Y_0 + Y_{1m}\cos(\omega t) + Y_{2m}\cos(2\omega t)$$
$$THD = \frac{\sqrt{Y_{2m}^2 + Y_{3m}^2 + \ldots + Y_{nm}^2}}{\sqrt{Y_{1m}^2 + Y_{2m}^2 + Y_{3m}^2 + \ldots + Y_{nm}^2}}$$

U uslovima malih izobličenja

$$THD = \frac{\sqrt{Y_{2m}^2 + Y_{3m}^2 + \ldots + Y_{nm}^2}}{\sqrt{Y_{1m}^2}}$$