

$$L_y = \frac{N_y^2}{N_x^2} \times L_x$$

Calculate inductance from turns

L_x	Initial inductance
L_y	New inductance
N_x	Initial turns
N_y	New turns

$$N_y = \sqrt{\frac{L_y}{L_x} \times N_x^2}$$

Calculate turns from inductance