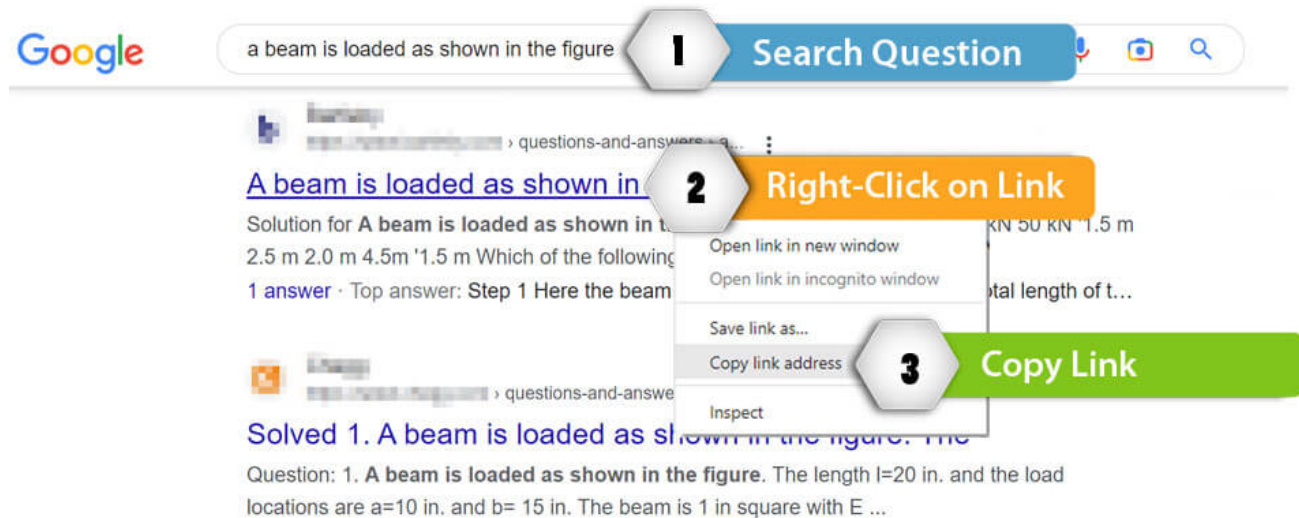


[<< Search more Solutions!](#)**Found Errors in Solution? >> [Report here!](#)**

**To do:** If you are getting wrong answer or irrelevant answer.

**Fix #1 >>** We suggest you to follow the directions shown in the below image to get right question link.

**Answer**

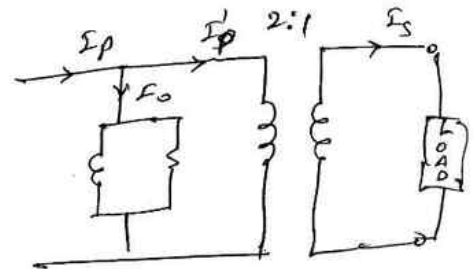
Given,

$$\frac{400}{200} \text{ V}, \therefore \text{turn ratio } n = 2:1$$

$$\text{secondary current } (I_s) = 25 \angle -\cos^{-1} 0.866 \\ = 25 \angle -30^\circ \text{ Amp}$$

$$\therefore I_p' = \frac{25}{2} \angle -30^\circ$$

$$I_p' = 12.5 \angle -30^\circ \text{ Amp}$$



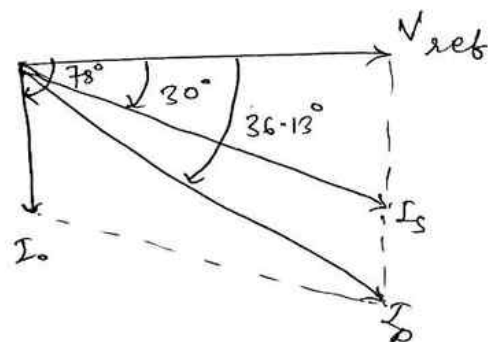
$$\text{and } I_o = 2 \angle -\cos^{-1} 0.208$$

$$I_o = 2 \angle -78^\circ \text{ amp}$$

$$\therefore I_p = I_o + I_p' = 2 \angle -78^\circ + 12.5 \angle -30^\circ$$

$$I_p = 13.918 \angle -36.13^\circ \text{ amp. Ans lagging}$$

Phasor diagram:-



please give a thumb up. Thank you