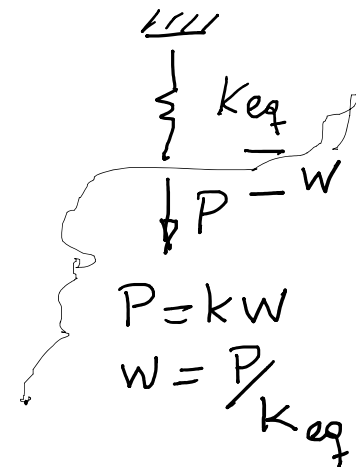


$$W = PL^3/3EI$$

Since  $w = P/k_{eq}$  then  
 $1/k_{eq} = L^3/3EI$  or

$$K_{eq} = 3EI/L^3$$

Remember that the equivalent system must see the same load  
And the same displacement under the load as the original system



$K_{eq}$

It is  $3EI/L^3$