W_{iaf} = area iafcdi $\Rightarrow$ W_{iaf} = + area iafcdi —(1)

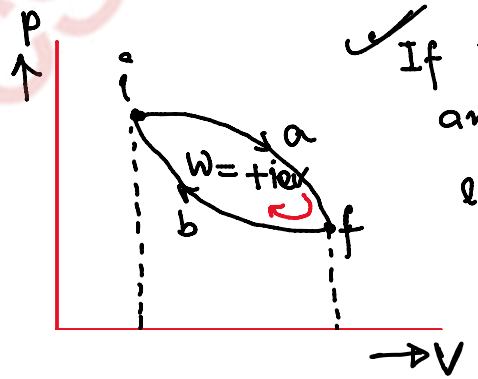
$W_{fbi} = -$ (area fbidcf) —(2)

$W_{total} = W_{iaf} + W_{fbi}$ = area iafcdi − area fbidcf

W_{total} = area iafbi —(3)

So, work done during a cyclic process is equal to the area enclosed by the cyclic curve in indicator diagram.

Note:



✓ If V is plotted along x-axis and p is plotted along Y-axis then for the cyclic process