8. For a constant pressure process the work done is calculated as the product of the pressure times the change in volume.

$$
\begin{aligned}
& \mathrm{W}=\mathrm{P} \Delta \mathrm{~V} \\
& \mathrm{~W}=\mathrm{P}\left(\mathrm{~V}_{2}-\mathrm{V}_{1}\right) \\
& \mathrm{W}=\left(1500 \mathrm{~N} / \mathrm{m}^{2}\right)(5.0-2.0) \mathrm{m}^{3} \\
& \mathrm{~W}=(1500)(3.0) \mathrm{Nm}=4500 \mathrm{~J}
\end{aligned}
$$

This is a positive quantity, so work was done by the system when the gas expanded.

