Thermo Equations List all of the thermodynamic equations you can come up with.

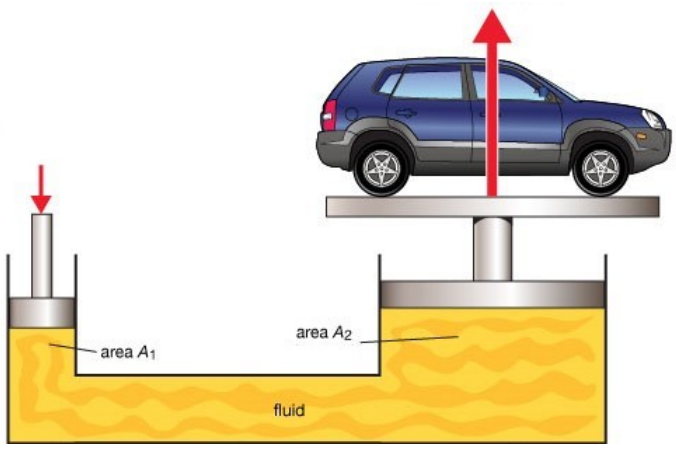
Inefficient Engine An inefficient heat engine operates at only 10% of its maximum possible efficiency. To successfully do its job it needs to do $800J$ of work. If its cold reservoir is at $18°C$ and its hot reservoir is at $550°C$,

- What is the actually efficiency of this heat engine?
- How much energy does it take from the hot reservoir?
- How much does it give to the cold reservoir?

[0]Select problems may be modified from Walsh, Harrison, or the Internet.

Car Lift Google says the average car weighs about $1500kg$ and the average American weights about $80kg$.

- How many people would need to stand on the left side for the car to rise if A_2 is twice as big as A_1?
- How much bigger would A_2 need to be compared to A_1 for you to make the car rise by yourself?



Elephant or Stilettos You have to have your foot stood on by either A) your average elephant $(5,443kg)$ or B) your average person $(80kg)$ wearing stilettos. Which would you choose?
A human foot can withstand $3-4atm$ of pressure. Calculate to find out if your foot would survive your choice.
If you switched your choice would your foot fair any better/worse?