

**The slope of an isochoor (constant volume) in a  $us$ -diagram ( $s$  on the horizontal axis) is .....**

The slope of an isochoor in a  $us$ -diagram ( $s$  on the horizontal axis) is given by:  $\left(\frac{\partial u}{\partial s}\right)_v$ . From  $du = Tds - Pdv$  it follows that this is equal to  $T$ . The temperature in (in Kelvin) is always positive. Therefore the slope of the isochoor is always rising