Your group will be given one of the following partial derivatives:

$$a)\quad \left(\frac{\partial S}{\partial T}\right)_V \qquad b)\quad \left(\frac{\partial T}{\partial S}\right)_p \qquad c)\quad \left(\frac{\partial S}{\partial V}\right)_T \qquad d)\quad \left(\frac{\partial p}{\partial S}\right)_V \qquad e)\quad \left(\frac{\partial S}{\partial p}\right)_T \tag{1}$$

$$f)\quad \left(\frac{\partial p}{\partial S}\right)_T \qquad g)\quad \left(\frac{\partial T}{\partial S}\right)_V \qquad h)\quad \left(\frac{\partial V}{\partial S}\right)_T \qquad i)\quad \left(\frac{\partial V}{\partial S}\right)_p \qquad j)\quad \left(\frac{\partial S}{\partial T}\right)_p \tag{2}$$

In your group, design an experiment to measure this derivative. Draw a sketch of the apparatus and describe how to convert directly measured data into a numerical value for the derivative.

If you finish with your derivative, you can try designing an experiment for the next derivative in the list.