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

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

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

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.