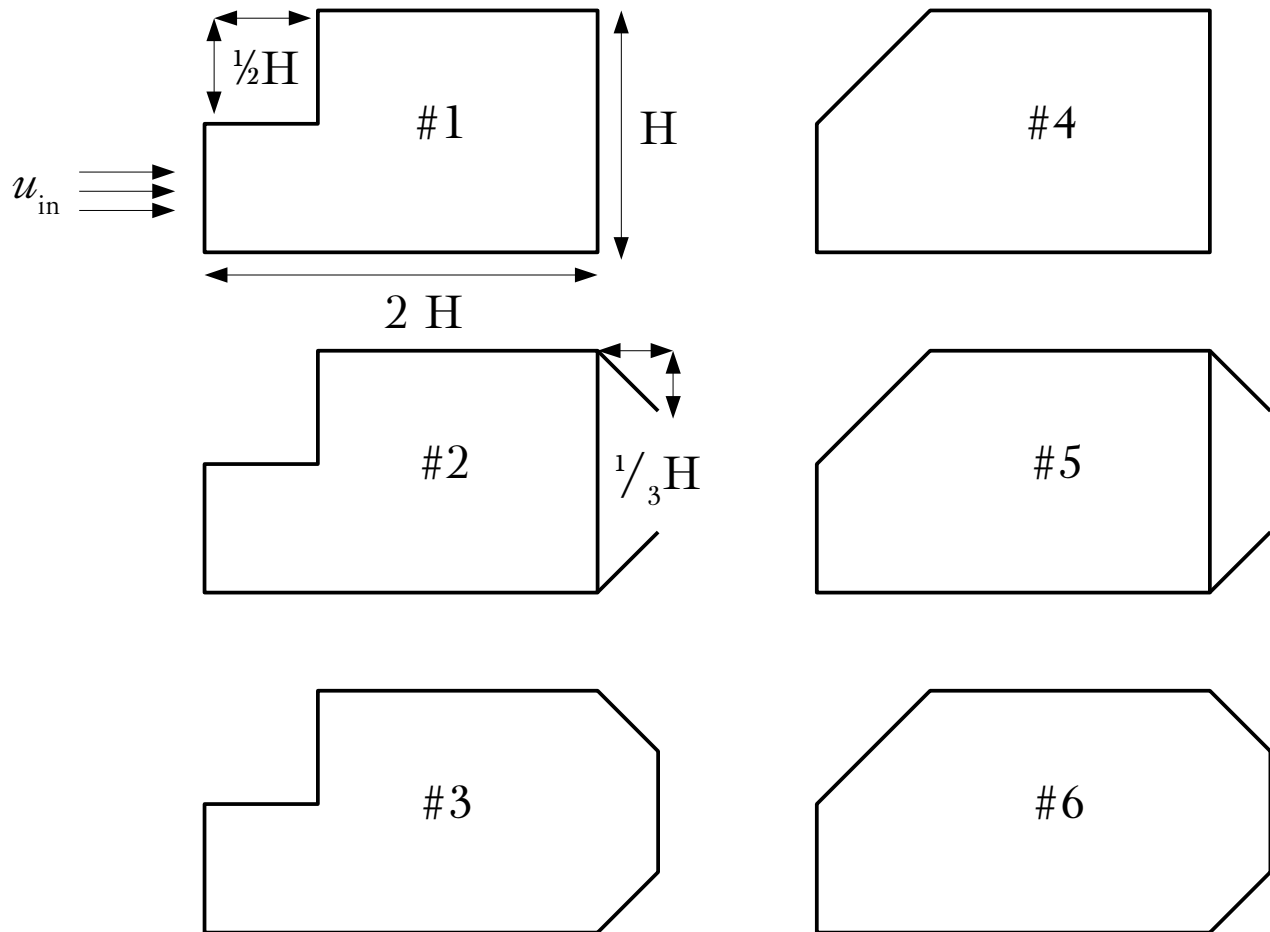### Drag Coefficient of Various Bodies

Previously you were assigned one of the following sets of truck contours (#1–3 or #4–6) to create as external flow geometries (*i.e.*, the fluid will flow around the contour in a larger volume). In today's lab, we will calculate the drag coefficient for each shape under turbulent flow conditions.

1. Set the drag and lift options (under *Reference Values*); also set drag and lift monitors projected onto upper surfaces of the truck. Assuming $H = 2$ m and width $W = 1.5$ m, cross-sectional (projected) area $A = 3$ m². $u_{in} = 30$ m/s (67 mph); turbulence model $k–\varepsilon$ with inlet turbulence 5%. If you need to make other assumptions, you should document them on this worksheet. Calculate the drag and drag coefficient.

   a. F_{drag} = _____

   b. C_D = _____