# Circular Cylinder Lab

Student Name

Date

**Figure 1a.** Normalized mean horizontal velocity as a function of vertical distance in the wake of the circular cylinder at x/D=7 and ReD=1x104. The error bars represent a 95% confidence interval in the mean at each y-location. Measurements were obtained using a Pitot-static tube, and time-averaged for 15 s at each y-location.

[copy and paste your figure 1a here]

**Figure 1b.** Normalized turbulence intensity as a function of vertical distance in the wake of a circular cylinder under the same conditions as those in Figure 1a.

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[copy and paste your figure 1c here]

[copy and paste your figure 1d here]

**Figure 1d.** Drag coefficient versus Reynolds number for a circular cylinder, comparing the values obtained from the present measurements using two different methods: (i) integrating the static pressure distribution around the cylinder, and (ii) applying conservation of x-momentum to a control volume around the cylinder. The published data are from Schlichting, Boundary-Layer Theory (1979).

**Figure 1c.** Coefficient of pressure as a function of angular position around the surface of a circular cylinder at ReD=1x104. The error bars represent a 95% confidence interval in the mean at each angular position. Measurements were obtained using a surface tap on the cylinder, and time-averaged for 15 s at each angular position.

Short-Answer Questions

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2a. [insert your response here]

*A math problem with numbers and equations

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2b. [insert your response here]

A math equations and numbers

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2c. [insert your response here]

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2d. [insert your response here]