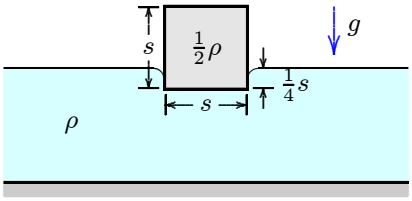
Known Typographical Errors in the Fourth Edition, First Printing of Basic Fluid Mechanics by D. C. Wilcox

These are all of the known typographical errors as of September 6, 2010.

1. Page 45, Problem 1.73, figure: The curvature of the free surface near the cube is incorrect. The correct figure is as follows.



2. Page 87, Problems 2.78 and 2.80, first line: Replace "thrust force, T" with "thrust force, $\mathcal{T}$" to avoid confusion with "(dimensions of $1/T$)" on the third line.

3. Page 207, Problem 5.27: Replace "constant of dimensions $1/L$" with "constant of dimensions $1/T$".

4. Page 264, Problem 6.57, fourth line: Replace "Also, the pressure" with "Also, the pressures".

5. Page 272, Problem 6.84, figure: Replace "$p + \Delta p$" with "$p_a + \Delta p$".

6. Page 278, Problem 6.106, last line: Replace "$\eta = 1 - 4r/D$" with "$\eta = 1 - r/R$".

7. Page 389, Problem 8.11(d): Add "Assume $p = 1$ atm."

8. Page 391, Problem 8.30, figure: Replace "$M = 2$" with "$M = 1.5$".

9. Page 457, Problem 10.24: Add "Neglect the rolling friction force."

10. Page 540, Problem 11.73: Replace "$2T_{max}/c = 0.09V$" with "$2T_{max}/c = 0.09$".

11. Page 653, Problem 13.23(c), next to last line: Replace "equal to be zero" with "equal to zero".

12. Page 741, Problem 14.52, first line: Replace "A flat plate" with "A rectangular flat plate".

13. Page 741, Problem 14.54, figure: Move the coordinate axes so that the origin lies at the leading edge of the plate.

14. Page 823, Problem 15.82, equation: In the first term, replace "$\frac{1}{2}\left(u_{i+1}^n - u_{i-1}^n\right)$" with "$\frac{1}{2}\left(u_{i+1}^n + u_{i-1}^n\right)$". The correct equation is

$$\frac{u_i^{n+1} - \frac{1}{2}\left(u_{i+1}^n + u_{i-1}^n\right)}{\Delta t} + a\,\frac{u_{i+1}^n - u_{i-1}^n}{2\Delta x} = 0$$