

Answers to exam I, fall 1998-99

1A. a) 32 slugs, b) 1029.6 lbm

1B. a) $n_A = 0.77$, $n_B = 0.23$, b) $M = 39.68$

1C. $9 \text{ m}^3/\text{s}$

1D. Nothing changes with time.

2. Depends in solution. I had six equations and six unknowns.

3. Must show all work for full credit. a) 5 hours, b) $\frac{dm_{\text{pile}}}{dt} = 2.5 - 0.05 m_{\text{pile}}$ c) 50 tons

4. I had 8 equations and 8 unknowns.