

**ME 513 Fall 2017 – Homework No. 1 – Due Sept. 8, 2017 (off-site:
emailed before midnight Sept. 8)**

From Kinsler, Frey, Koppens and Sanders:

1.2.1

1.3.2

1.5.3

1.6.4

Note regarding 1.6.4:

Damped oscillator with correct form of general solution $x = A \exp(-\beta t) \cos(\omega_d t + \varphi)$

NOTE: typo in book. The t is omitted in the cosine term.

“Starts at rest with a positive speed u_0 ”

NOTE: confusing language. System cannot start at rest (zero velocity) and have a positive speed at the same time. Interpret the problem statement to mean that the system starts at $x = 0$ with a positive velocity.