No questions on 8.1.1.

8.1.2 MODELS

A  "real" world
events
problems

transform

"Math" world

MODEL

Solve
Problem?

one or more
equations
w/ constraints
on the
indep.

SOL

Real
World
SOL?

B SOME MODELS

1 Freely Falling Body (p. 12)

\[ \frac{d^2 s}{dt^2} = -g, \quad 0 < t < t_f \]

2 Vibrating Mass on Spring (Read this, p. 13)

3 Simple Pendulum, (vs Compound Pendulum) (p. 14)

4 Rotating String (p. 15)

5 Charge on a Capacitor (p. 16) Might do some.

6 Newton's Law of Cooling (pp. 16-17) Might do some.

7 Shape of a Hanging Wire (p. 17)

8 Depth of Water in a Draining Tank (p. 19) READ.

9 Deflection of Cantilever Beam (p. 19)

10 Pop. Growth (p. 20-21) Might do.

11 Spread of a Disease (Read) pp. 20-21.

END @ 0957