

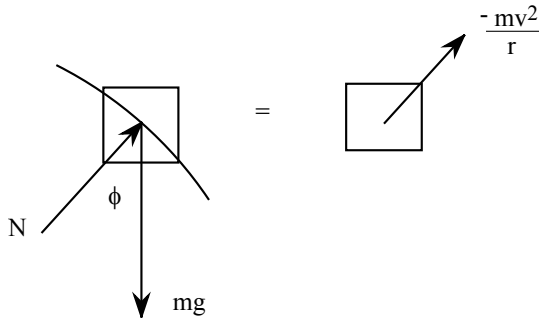
**ERRATA for
Multidiscipline Practice Problems for the FE Exam (CD-ROM)**

VERSION 1.0 ©2005
ISBN 13: 978-1-932613-22-3
ISBN 10: 1-932613-22-6
(posted 04-02-2009)

Each Discipline: Tutorial Mode and Test Mode/AM Test/Hint and Solution

Question 1. The correct answer is *underdamped*.

Question 19. The hint and solution should be written as follows:



$$\frac{-mv^2}{r} = N - mg \cos(\phi)$$

$$N = m \left(\frac{-v^2}{r} + \frac{4}{5}g \right)$$

$$N = 0.1 \left(\frac{-5^2}{5} + \frac{4}{5}9.81 \right)$$

$$N = 0.285$$

Question 21. The hint/solution should read as follows:

Refer to Stresses in Beams in the Mechanics of Materials section of the *FE Supplied-Reference Handbook*.

Max. bending stress, $\sigma = Mc/I$ where,

M = bending moment = 450 N-m

c = distance to outermost fiber = $h/2$

I = moment of inertia of section = $bh^3/12$

b = breadth of section = 0.08 m

h = height of section = 0.1 m

Substituting all the given data,

$$\sigma = \frac{(450 \text{ N})(0.1 \text{ m}/2)}{[0.08 \text{ m} \times (0.1 \text{ m})^3 / 12]}$$

$$= 3.375 \times 10^6 \text{ Pa} = 3.375 \text{ MPa}$$

Question 26. The correct answer is:

It varies inversely as the square of the distance to the charge.

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Environmental Discipline: Tutorial Mode and Test Mode/PM Test/Solution

Question 6. The correct answer is (A). The EPA-preferred hierarchy is:

Pollution prevention–waste minimization

Recycle–reuse

Treatment

Disposal