SSE 2300, CE/CSE 5710

Homework 1: Due 01/28/11

The formula "Two and two make five" is not without its attractions

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January 19, 2011

Question 1

Choose your favorite "formula" from your engineering classes and do the following:

- List and justify all assumptions made in deriving the formula

- Define the abstraction of/observations from the real system that are used to build the fundamental relationships

- Explain how the formula represents the above relationships

- Discuss the conditions under which the formula works and classify the model that the formula represents

Typical equations that you can use are: beam deflection equation, Navier-Stokes equation, boundary layer equations etc.

Question 2.

Carefully read the attached case study. Considering the importance of the 'just-in-time' delivery system and answer the following questions:

- Develop a blue print for the 100 Yen Sushi House operation

- Define the service package that is provided in the case study

- Define the service process

- Define a production function that can be used to monitor and control the process

- Suggest another service (should not be in the hospitality industry) where this same service paradigm can be used.

Please ensure that all home works are submitted on time, appropriately formated and type written. Use 1" margins, 10 size font, 1.5 line spacing and an appropriate font.

Question 3.

For Graduate Students only - Review of Paper by Fishwick.