J. D. Phillips* (phillipj@wabash.edu), Department of Mathematics and Computer Sc., Crawfordsville, IN 47933. Self-interest and mean values: three problems.

I present three original calculus problems: (1) an invitation for students to define a function; they should be motivated out of genuine self-interest, (2) a “deus ex machina” appearance of the mean value theorem, and (3) a nifty application of the mean value theorem for definite integrals. (Received October 05, 2004)