**Question 1**

We are going to cover the Dirac delta function in class next week (It's in Boas Ch 8, Section 11, or the last 3 pages of my Ch 5 lecture notes, pp "Fourier-16" to "Fourier-18" I'm curious if you already know about them - so here's a quick question. What is the integral (from x=0 to x=10) of (3x+1)delta(x-2)  dx ?

Question 1 options:

|  |  |
| --- | --- |
|  | zero |
|  | 1 |
|  | 2 |
|  | 7 |
|  | I know this, but it's not listed here! |
|  | I don't know this (yet) |

**Question 2**

Optional:  If you want to elaborate or explain your answer for that previous question, we're interested!

**Question 3**

Explain in your own words what "Fourier's trick" is, both mathematically and conceptually.

**Question 4**

We made an analogy in class between "expanding a vector in a basis" and "expanding a function with a Fourier Series". Did you understand that argument, did it make some sense to you, or did you get lost? In your own words, try to articulate that analogy - how do *you* think about it?

**Information**

Every week, we ask you to submit a question you have about the reading assigned for the upcoming class. What seemed hard, was something confusing, what would you like us to spend class time on? And/or, if you prefer, make a (constructive) comment on someone else's question!  
 **The place to do this is our "Discussion forum".** After completing this survey, find the forum for this week, and post there! This is, from here on out, extra credit rather than required **(but strongly recommended, please participate!)**