Fourier tells us that we can write a "pulse" by summing up sinusoidal functions:

$$f(x) = \int_{-\infty}^{\infty} a(k) e^{ikx} dk$$

If we were to compute $f(x) = \int_{-\infty}^{\infty} a(k) e^{ik(x-vt)} dk$ where v is a known constant, what would we get?

A. $f(x)$
B. $f(vt)$
C. $f(x-vt)$
D. Something complicated!
E. ???

ANNOUNCEMENTS

- HW 11 is posted
  - Looks long, but 2 questions are roughly the same...
- Graded HW 9, Quiz 5, and HW 10 will be returned Wednesday; sorry!

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If we were to compute $f(x) = \int_{-\infty}^{\infty} a(k) e^{ik(x-v(k)t)} dk$ where $v(k)$ is function, what would we get?

A. $f(x)$
B. $f(vt)$
C. $f(x-vt)$
D. Something more complicated!
E. ???