

2013 Quals Questions

Hi --

Here they are.

Thanks!

-- John Pauly

Question 1:

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$f(t)$  is a real, causal signal.

Given  $\operatorname{Re}\{F(s)\}$ , for  $s \geq 0$ , can you find  $f(t)$ ?

Question 2:

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$f(t)$  is a signal bandlimited to  $\pm B$ .

How many times can it cross zero over an interval from 0 to  $A$ ?