

## Asymptotes of Antiderivatives

**Question:** Suppose that the function  $F(x) = \int_a^x f(t) dt$  in question 5 has a horizontal asymptote. How do we tell where, or even if, there's an asymptote?

**Answer:** The questions about  $F(x) = \int_a^x f(t) dt$  are generally the trickiest problems. During the exam you probably won't be able to figure out what happens to the function as  $x$  goes to infinity. Just deciding whether there is an asymptote or not is a serious question which we'll address at the very end of the course.

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