

Math 675
Assignment #6
Due October 19, 2009

Name _____

47. Find the first four terms in an expansion as $x \rightarrow 0^+$ of $\int_x^1 \cos(xt) dt$.
48. Find the first three terms in an expansion as $x \rightarrow 0$ of $\int_0^1 \sqrt{\sinh xt} dt$
49. Find the first three terms in an expansion as $x \rightarrow 0$ of $\int_0^1 \frac{e^x - e^{xt}}{1-t} dt$. What is the complete series?
50. Find the first three terms in an expansion as $x \rightarrow 0^+$ of $\int_0^x \frac{e^{-t}}{t+a} dt$. What is the complete series?