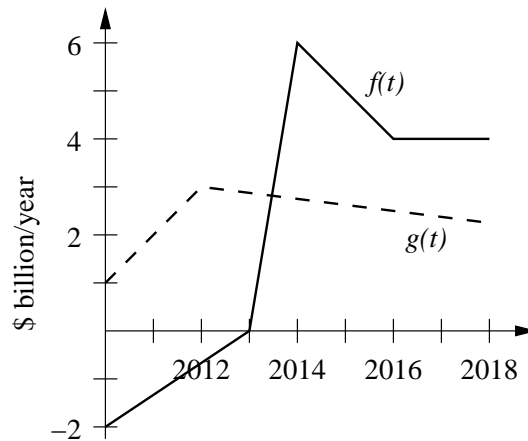**Extra problem for Section 5.4**

Senators Fillibuster and Gerrymander are each proposing plans for building the trust fund of the educational program known as No Child's Behind Left. The graphs $f(t)$ (solid) and $g(t)$ (dashed) shown below describe the **rate of change** of the amount of money in the NCBL trust fund under Sen. Fillibuster's plan and Sen. Gerrymander's plan, respectively. (The units of both $f(t)$ and $g(t)$ are billions of dollars per year.)

"Look at that spike of funding in 2014," says Sen. Fillibuster. "Clearly my plan will make the trust fund more secure in the end." "Nonsense," says Sen. Gerrymander. "Your plan never recovers from its first few years, which actually drain money from the fund instead of building it."

Suppose the NCBL trust fund starts with $20 billion in the year 2010. Whose plan leaves the NCBL trust fund in better shape in the year 2018? And under that plan, how much money will be in the trust fund in 2018?