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Evidencia 2.3

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$$f_1 = \begin{cases} t+10 & -10 \le t \le -5 \\ 5 & -5 \le t \le 5 \\ -t+10 & 5 \le t \le 10 \end{cases} \qquad f_2 = \begin{cases} t & 0 \le t \le 2 \\ -t+4 & 2 \le t \le 4 \end{cases}$$

$f_1 * f_2 =$

① $\int_{-10}^{t+4} (x+10)(-x+4)\,dx$ $\quad -14 \le t \le -12$

② $\int_{-10}^{t+2} (x+10)x\,dx + \int_{t+2}^{t+4} (x+10)(-t+4)\,dx$ $\quad -12 \le t \le 10$

③ $\int_{t}^{t+2} x(x+10)\,dx + \int_{t+2}^{t+4} (x+10)(-x+4)\,dx$ $\quad -10 \le t \le -9$

④ $\int_{t}^{-5} x(x+10)\,dx + \int_{-5}^{t+2} (x+10)(-x+4)\,dx + \int_{5}^{t+4} 5(-x+4)\,dx$ $\quad -9 \le t \le -7$

⑤ $\int_{t}^{5} x(x+10)\,dx + \int_{5}^{t+2} 5(x)\,dx + \int_{t+2}^{t+4} 5(-x+4)\,dx$ $\quad -7 \le t \le -5$

⑥ $\int_{t}^{t+2} 5x\,dx + \int_{t+2}^{t+4} 5(-x+4)\,dx$ $\quad -5 \le t \le 1$

⑦ $\int_{t}^{t+2} x(5)\,dx + \int_{t+2}^{5} 5(-x+4)\,dx + \int_{5}^{t+4} (10-x)(-x+4)\,dx$ $\quad 1 \le t \le 3$

⑧ $\int_{t}^{5} 5x\,dx + \int_{5}^{t+2} x(10-x)\,dx + \int_{t+2}^{t+4} (-x+4)(10-x)\,dx$ $\quad 3 \le t \le 5$

⑨ $\int_{t}^{t+2} (10-x)x\,dx + \int_{t+2}^{t+4} (10-x)(-x+4)\,dx$ $\quad 5 \le t \le 6$

⑩ $\int_{t}^{t+2} x(10-x)\,dx + \int_{t+2}^{10} (10-x)(4-x)\,dx$ $\quad 6 \le t \le 8$

⑪ $\int_{t}^{10} x(10-x)\,dx$ $\quad 8 \le t \le 10$