Solution 22.1

Although it's not required, the analytical solution can be evaluated simply as

$$I = \int_0^3 xe^{2x}\, dx = \left[0.25e^{2x}(2x-1) \right]_0^3 = 504.53599$$

The tableau depicting the implementation of Romberg integration to ε_s = 0.5% is

iteration →	1	2	3	4
ε_t →	259.8216%	31.8835%	1.8912%	0.0312%
ε_a →		43.2082%	1.8397%	0.0290545%
1	1815.42957072	665.39980101	514.07794398	504.69324146
2	952.90724344	523.53556004	504.83987744	
4	630.87848089	506.00835760		
8	537.22588842			