

	SINGLE		MULTIPLE	
	average height	Ea	average height	Ea
Trapezoidal	$\frac{f(a) + f(b)}{2}$	$-\frac{1}{12}f''(\xi)(b-a)^3$	$\frac{f(x_0) + 2 \sum_{i=1}^{n-1} f(x_i) + f(x_n)}{2n}$	$-\frac{(b-a)^3}{12n^2}\bar{f}''$
Simpson's 1/3	$\frac{f(x_0) + 4f(x_1) + f(x_2)}{6}$	$-\frac{(b-a)^5}{2880}f^{(4)}(\xi)$	$\frac{f(x_0) + 4 \sum_{i=1,3,5}^{n-1} f(x_i) + 2 \sum_{j=2,4,6}^{n-2} f(x_j) + f(x_n)}{3n}$	$-\frac{(b-a)^5}{180n^4}\bar{f}^{(4)}$
Simpson's 3/8	$\frac{f(x_0) + 3f(x_1) + 3f(x_2) + f(x_3)}{8}$	$-\frac{(b-a)^5}{6480}f^{(4)}(\xi)$		

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Simpson's 1/3	$\frac{f(x_0) + 4f(x_1) + f(x_2)}{6}$	$-\frac{(b-a)^5}{2880}f^{(4)}(\xi)$	$\frac{f(x_0) + 4 \sum_{i=1,3,5}^{n-1} f(x_i) + 2 \sum_{j=2,4,6}^{n-2} f(x_j) + f(x_n)}{3n}$	$-\frac{(b-a)^5}{180n^4}\bar{f}^{(4)}$
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