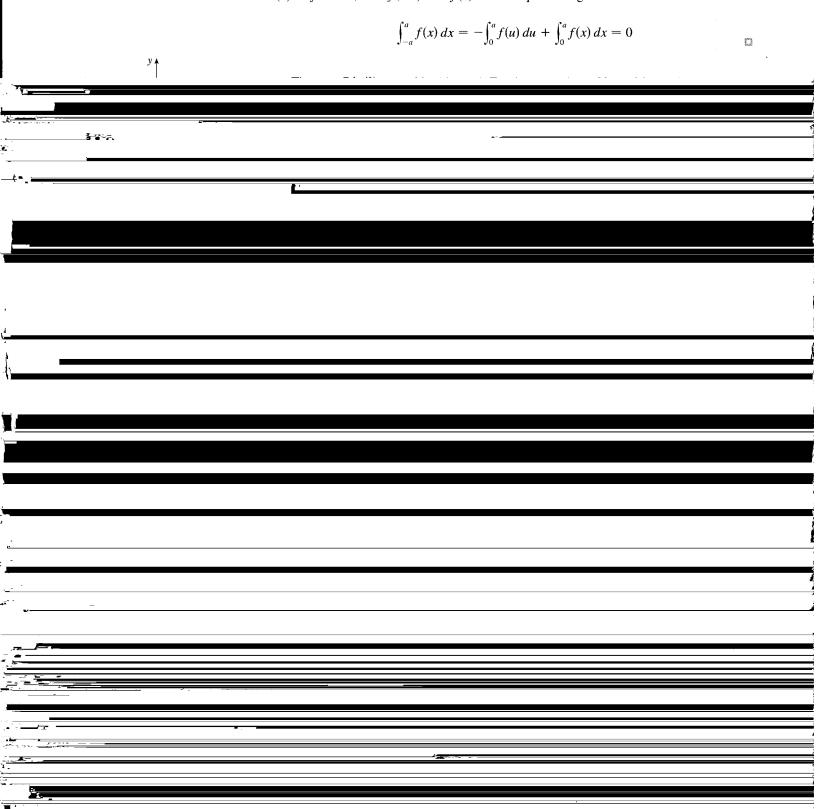
and so Equation 8 becomes

$$\int_{-a}^{a} f(x) \, dx = \int_{0}^{a} f(-u) \, du + \int_{0}^{a} f(x) \, dx$$

(a) If f is even, then f(-u) = f(u) so Equation 9 gives

$$\int_{-a}^{a} f(x) dx = \int_{0}^{a} f(u) du + \int_{0}^{a} f(x) dx = 2 \int_{0}^{a} f(x) dx$$

(b) If f is odd, then f(-u) = -f(u) and so Equation 9 gives



10 cos 7.4.4A	20 1 sec220 dA	$r_{\pi/3} \sin \theta$	-	$r\pi/2$ $x^2 \sin x$
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