

	$F(\varphi \setminus \alpha)$	Equivalent Inverse Jacobian Elliptic Function	$\varphi$	$t$ Substitution	$E(\varphi \setminus \alpha)$
$\cos \alpha = b/a$ $a > b$ $m = (a^2 - b^2)/a^2$	17.4.41 $a \int_0^x \frac{dt}{[(t^2 + a^2)(t^2 + b^2)]^{1/2}}$	$\operatorname{sc}^{-1} \left( \frac{x}{b} \middle  \frac{a^2 - b^2}{a^2} \right)$	$\tan \varphi = \frac{x}{b}$	$t = b \operatorname{sc} v$	$\frac{b^2}{a} \int_0^x \frac{(t^2 + a^2)}{(t^2 + b^2)} \frac{dt}{[(t^2 + a^2)(t^2 + b^2)]^{1/2}}$
	17.4.42 $a \int_x^\infty \frac{dt}{[(t^2 + a^2)(t^2 + b^2)]^{1/2}}$	$\operatorname{cs}^{-1} \left( \frac{x}{a} \middle  \frac{a^2 - b^2}{a^2} \right)$	$\tan \varphi = \frac{a}{x}$	$t = a \operatorname{cs} v$	$a \int_x^\infty \frac{(t^2 + b^2)}{(t^2 + a^2)} \frac{dt}{[(t^2 + a^2)(t^2 + b^2)]^{1/2}}$
	17.4.43 $a \int_b^x \frac{dt}{[(a^2 - t^2)(t^2 - b^2)]^{1/2}}$	$\operatorname{nd}^{-1} \left( \frac{x}{b} \middle  \frac{a^2 - b^2}{a^2} \right)$	$\sin^2 \varphi = \frac{a^2(x^2 - b^2)}{x^2(a^2 - b^2)}$	$t = b \operatorname{nd} v$	$ab^2 \int_b^x \frac{1}{t^2} \frac{dt}{[(a^2 - t^2)(t^2 - b^2)]^{1/2}}$
	17.4.44 $a \int_x^a \frac{dt}{[(a^2 - t^2)(t^2 - b^2)]^{1/2}}$	$\operatorname{dn}^{-1} \left( \frac{x}{a} \middle  \frac{a^2 - b^2}{a^2} \right)$	$\sin^2 \varphi = \frac{a^2 - x^2}{a^2 - b^2}$	$t = a \operatorname{dn} v$	$\frac{1}{a} \int_x^a \frac{t^2 dt}{[(a^2 - t^2)(t^2 - b^2)]^{1/2}}$
	17.4.45 $a \int_0^x \frac{dt}{[(a^2 - t^2)(b^2 - t^2)]^{1/2}}$	$\operatorname{sn}^{-1} \left( \frac{x}{b} \middle  \frac{b^2}{a^2} \right)$	$\sin \varphi = \frac{x}{b}$	$t = b \operatorname{sn} v$	$\frac{1}{a} \int_0^x \frac{(a^2 - t^2) dt}{[(a^2 - t^2)(b^2 - t^2)]^{1/2}}$
$\sin \alpha = b/a$ $a > b$ $m = b^2/a^2$	17.4.46 $a \int_x^b \frac{dt}{[(a^2 - t^2)(b^2 - t^2)]^{1/2}}$	$\operatorname{cd}^{-1} \left( \frac{x}{b} \middle  \frac{b^2}{a^2} \right)$	$\sin^2 \varphi = \frac{a^2(b^2 - x^2)}{b^2(a^2 - x^2)}$	$t = b \operatorname{cd} v$	$a(a^2 - b^2) \int_x^b \left( \frac{1}{a^2 - t^2} \right) \frac{dt}{[(a^2 - t^2)(b^2 - t^2)]^{1/2}}$
	17.4.47 $a \int_a^x \frac{dt}{[(t^2 - a^2)(t^2 - b^2)]^{1/2}}$	$\operatorname{dc}^{-1} \left( \frac{x}{a} \middle  \frac{b^2}{a^2} \right)$	$\sin^2 \varphi = \frac{x^2 - a^2}{x^2 - b^2}$	$t = a \operatorname{dc} v$	$\frac{a^2 - b^2}{a} \int_a^x \left( \frac{t^2}{t^2 - b^2} \right) \frac{dt}{[(t^2 - a^2)(t^2 - b^2)]^{1/2}}$
	17.4.48 $a \int_x^\infty \frac{dt}{[(t^2 - a^2)(t^2 - b^2)]^{1/2}}$	$\operatorname{ns}^{-1} \left( \frac{x}{a} \middle  \frac{b^2}{a^2} \right)$	$\sin \varphi = \frac{a}{x}$	$t = a \operatorname{ns} v$	$a \int_x^\infty \left( \frac{t^2 - b^2}{t^2} \right) \frac{dt}{[(t^2 - a^2)(t^2 - b^2)]^{1/2}}$
$\cot \alpha = \frac{b}{a}$ $m = a^2/(a^2 + b^2)$	17.4.49 $(a^2 + b^2)^{1/2} \int_b^x \frac{dt}{[(t^2 + a^2)(t^2 - b^2)]^{1/2}}$	$\operatorname{nc}^{-1} \left( \frac{x}{b} \middle  \frac{a^2}{a^2 + b^2} \right)$	$\cos \varphi = \frac{b}{x}$	$t = b \operatorname{nc} v$	$\frac{b^2}{(a^2 + b^2)^{1/2}} \int_b^x \frac{t^2 + a^2}{t^2} \frac{dt}{[(t^2 + a^2)(t^2 - b^2)]^{1/2}}$
	17.4.50 $(a^2 + b^2)^{1/2} \int_x^\infty \frac{dt}{[(t^2 + a^2)(t^2 - b^2)]^{1/2}}$	$\operatorname{ds}^{-1} \left( \frac{x}{(a^2 + b^2)^{1/2}} \middle  \frac{a^2}{a^2 + b^2} \right)$	$\sin^2 \varphi = \frac{a^2 + b^2}{a^2 + x^2}$	$t = (a^2 + b^2)^{1/2} \operatorname{ds} v$	$(a^2 + b^2)^{1/2} \int_x^\infty \frac{t^2}{(t^2 + a^2)} \frac{dt}{[(t^2 + a^2)(t^2 - b^2)]^{1/2}}$
$\tan \alpha = \frac{b}{a}$ $m = b^2/(a^2 + b^2)$	17.4.51 $(a^2 + b^2)^{1/2} \int_0^x \frac{dt}{[(t^2 + a^2)(b^2 - t^2)]^{1/2}}$	$\operatorname{sd}^{-1} \left( \frac{x(a^2 + b^2)^{1/2}}{ab} \middle  \frac{b^2}{a^2 + b^2} \right)$	$\sin^2 \varphi = \frac{x^2(a^2 + b^2)}{b^2(a^2 + x^2)}$	$t = \frac{ab}{(a^2 + b^2)^{1/2}} \operatorname{sd} v$	$a^2(a^2 + b^2)^{1/2} \int_0^x \frac{1}{(t^2 + a^2)} \frac{dt}{[(t^2 + a^2)(b^2 - t^2)]^{1/2}}$
	17.4.52 $(a^2 + b^2)^{1/2} \int_x^b \frac{dt}{[(t^2 + a^2)(b^2 - t^2)]^{1/2}}$	$\operatorname{cn}^{-1} \left( \frac{x}{b} \middle  \frac{b^2}{a^2 + b^2} \right)$	$\cos \varphi = \frac{x}{b}$	$t = b \operatorname{cn} v$	$\frac{1}{(a^2 + b^2)^{1/2}} \int_x^b \frac{(t^2 + a^2) dt}{[(t^2 + a^2)(b^2 - t^2)]^{1/2}}$