! For an efficient use of these tables, first read `HowTo.pdf`.

T2.22C. Integrands of the form $\dfrac{1}{\sqrt{x^4+1}}$, $\dfrac{1}{x^2\sqrt{x^4+1}}$, $\dfrac{x^2}{(x^4\pm1)\sqrt{x^4+1}}$, $\dfrac{\sqrt{x^4+1}}{(x^2\pm1)^2}$, and $\dfrac{(x^2\pm1)^2}{(x^2+2ax+a^2)\sqrt{x^4+1}}$ on the interval $(1, y)$.

Notation used: $\delta = \arccos\dfrac{1}{y}$, $\quad r = \dfrac{\sqrt{2}}{2}$.

1. $\displaystyle\int_1^y \frac{dx}{\sqrt{x^4-1}} = \frac{1}{\sqrt{2}}F(\delta,\, r) \quad y > 1.$

2. $\displaystyle\int_1^y \frac{x^2\,dx}{\sqrt{x^4-1}} = \frac{1}{\sqrt{2}}F(\delta,\, r) - \sqrt{2}E(\delta,\, r) + \frac{1}{y}\sqrt{y^4-1}, \quad y > 1.$

3. $\displaystyle\int_1^y \frac{x^4\,dx}{\sqrt{x^4-1}} = \frac{1}{3\sqrt{2}}F(\delta,\, r) + \frac{1}{3}y\sqrt{y^4-1}, \quad y > 1.$
