P.134.9 $\int \sqrt{1+9x^2}\,dx = x\cdot\sqrt{1+9x^2} - \int x\, d\sqrt{1+9x^2} = x\cdot\sqrt{1+9x^2} - \int x\cdot\frac{18x}{2\sqrt{1+9x^2}}dx$

$= x\cdot\sqrt{1+9x^2} - \int \frac{9x^2}{\sqrt{1+9x^2}}dx = x\cdot\sqrt{1+9x^2} - \int \frac{1+9x^2-1}{\sqrt{1+9x^2}}dx$

$= x\cdot\sqrt{1+9x^2} - \int \sqrt{1+9x^2}\,dx + \int \frac{dx}{\sqrt{1+9x^2}}$

$2\int \sqrt{1+9x^2}\,dx = x\cdot\sqrt{1+9x^2} + \frac{1}{3}\int \frac{1}{\sqrt{1+(3x)^2}}d(3x)$

$\int \sqrt{1+9x^2}\,dx = \frac{x}{2}\cdot\sqrt{1+9x^2} + \frac{1}{6}\operatorname{arctan} 3x + C.$

11. $\int \ln(x+\sqrt{1+x^2})\,dx = x\cdot\ln(x+\sqrt{1+x^2}) - \int x\, d\ln(x+\sqrt{1+x^2})$

$= x\ln(x+\sqrt{1+x^2}) - \int \frac{x}{\sqrt{1+x^2}}dx$

$= x\ln(x+\sqrt{1+x^2}) - \int \frac{1}{2\sqrt{1+x^2}}d(1+x^2)$

$= x\cdot\ln(x+\sqrt{1+x^2}) - \sqrt{1+x^2} + C.$

12. $\int (\operatorname{arccos} x)^2\,dx = x\cdot(\operatorname{arccos} x)^2 - \int x\, d(\operatorname{arccos} x)^2$

$= x\cdot(\operatorname{arccos} x)^2 - \int x\cdot 2\operatorname{arccos} x\cdot\left(-\frac{1}{\sqrt{1-x^2}}\right)dx$

$= x\cdot(\operatorname{arccos} x)^2 - \int \operatorname{arccos} x\cdot\frac{1}{\sqrt{1-x^2}}d(1-x^2)$

$= x\cdot(\operatorname{arccos} x)^2 - 2\int \operatorname{arccos} x\, d\sqrt{1-x^2}$

$= x\cdot(\operatorname{arccos} x)^2 - 2\sqrt{1-x^2}\operatorname{arccos} x + 2\int \sqrt{1-x^2}\, d\operatorname{arccos} x$

$= x\cdot(\operatorname{arccos} x)^2 - 2\sqrt{1-x^2}\cdot\operatorname{arccos} x + 2\int \sqrt{1-x^2}\cdot\frac{-1}{\sqrt{1-x^2}}dx$

$= x\cdot(\operatorname{arccos} x)^2 - 2\sqrt{1-x^2}\cdot\operatorname{arccos} x - 2x + C.$