1) $\int\left(2e^x - 2^x + \frac{1}{2x}\right)dx = 2e^x - \frac{2^x}{\ln 2} + 2\ln|x| + c$

2) $\int\left(\frac{\cos x}{4} - \frac{3}{ch^2 x} + \frac{1}{\sqrt{4+x^2}}\right)dx = \frac{\sin x}{4} - 3\,th\,x + 2\,arsh\,x + c$

~~3) $\int(1+\sqrt{x})^4 dx \Rightarrow$ mo(x) nem tudjuk integrálni~~

4) $\int(\sqrt{x}+1)(x-\sqrt{x}+1)dx = \int(\sqrt{x}+1)(x-(\sqrt{x}-1))dx =$

$= \int x(\sqrt{x}+1) - (x-1)dx = \int x(\sqrt{x}+1) - x + 1\,dx = \int x^{\frac{3}{2}} + x - x + 1\,dx = \int x^{\frac{3}{2}} + 1\,dx = \frac{5\sqrt{x^5}}{2} + x + c$

3) $\int(1+\sqrt{x})^4 dx = \int(1+\sqrt{x})^2(1+\sqrt{x})^2 dx = \int(1+2\sqrt{x}+x)(1+2\sqrt{x}+x)dx =$ $\quad \sqrt{x^3} = x^{\frac{3}{2}} \quad \sqrt{x} = x^{\frac{1}{2}}$

$= \int 1 + 2\sqrt{x} + x + 2\sqrt{x} + 4x + 2\sqrt{x^3} + x + 2\sqrt{x^3} + x^2\,dx = \int x^2 + 6x + 4\sqrt{x^3} + 4\sqrt{x} + 1\,dx$

$= \frac{x^3}{3} + 3x^2 + \frac{8}{5}\sqrt{x^5} + \frac{8}{3}\sqrt{x^3} + x + c$

5) $\int\frac{\sqrt[3]{x^2} - \sqrt[4]{x}}{\sqrt{x}}dx = \int\left(\left(x^{\frac{2}{3}} - x^{\frac{1}{4}}\right)x^{-\frac{1}{2}}\right)dx = \int\left(x^{\frac{1}{6}} - x^{-\frac{1}{4}}\right)dx = \frac{6}{7}x^{\frac{7}{6}} - \frac{4}{3}x^{\frac{3}{4}} + c = \frac{6\sqrt[6]{x^7}}{7} - \frac{4\sqrt[4]{x^3}}{3} + c$

6) $\int\frac{\sqrt{x^3}+1}{\sqrt{x}+1}dx = \int\frac{(\sqrt{x}+1)(x+\sqrt{x}+1)}{\sqrt{x}+1}dx = \int(x+\sqrt{x}+1)dx =$

$= \frac{x^2}{2} + \frac{2}{3}\sqrt{x^3} + x + c$

7) $\int\frac{1+2x^2}{x^2(1+x^2)}dx = \int\left(\frac{1+x^2}{1+x^2}\cdot x^2 + \frac{x^2}{x^2}\cdot\frac{1}{1+x^2}\right)dx = \int\left(x^2 + \frac{1}{1+x^2}\right)dx = \frac{1}{3}x^3 + arc\,tg(x) + c$

8) $\int\frac{\sqrt{9x^2-9}-1}{\sqrt{x^2-1}}dx = \int\left(\frac{3\sqrt{x^2-1}}{\sqrt{x^2-1}} - \frac{1}{\sqrt{x^2-1}}\right)dx = 3x - arch(x) + c \quad : x > 1$

9) $\int\frac{1+\cos^2(x)}{1+\cos(2x)}dx = \int\frac{1+\cos^2(x)-\sin^2(x)+\sin^2(x)}{1+\cos^2(x)-\sin^2(x)}dx = \int\frac{\sin x}{1+\cos^2(x)-\sin^2 x}+1\,dx =$

$= \int 1 + \frac{\sin(x)}{2\cos^2 x}dx = \int 1\,dx + \frac{1}{2}\int\sin(x)\frac{1}{\cos^2 x}dx = x + \frac{1}{2}\int\cos(x)\cdot tg(x)\,dx + c$

$g(x) = \sin(x) \quad | \quad g'(x) = \cos(x)$

$f'(x) = \frac{1}{\cos^2(x)} \quad | \quad f(x) = tg(x)$

$= \frac{1}{2}\int\cos(x)\cdot\frac{\sin(x)}{\cos(x)}dx + x + c = \left(-\frac{1}{2}\right)\cdot\cos(x) + x + c = x - \frac{1}{2}\cos(x) + c$

10) $\int\frac{x+\cos^2 x}{x\cdot\cos^2 x}dx = \int\left(\frac{x}{x\cos^2 x} + \frac{\cos^2 x}{x\cos^2 x}\right)dx = \int\left(\frac{1}{\cos^2 x} + \frac{1}{x}\right)dx = tg(x) + \ln|x| + c$

11) $\int x^3\sin x\,dx = x^3(-\cos(x)) + \int 3x^2(+\cos(x))dx = -x^3\cdot\cos(x) + 3x^2\sin x + \int 6x\sin(x)dx =$

$g(x) = x^3 \quad | \quad g'(x) = 3x^2 \qquad g(x) = 3x^2 \quad | \quad g'(x) = 6x \qquad g(x) = 6x \quad | \quad g'(x) = 6$

$f'(x) = \sin(x) \quad | \quad f(x) = -\cos(x) \qquad f'(x) = \cos(x) \quad | \quad f(x) = \sin(x) \qquad f'(x) = \cos(x) \quad | \quad f(x) = -\sin(x)$

$= (-x^3)\cos(x) + 3x^2\sin x - 6x\sin(x) - \int 6\sin(x)\,dx = -x^3\cos(x) + 3x^2\sin x - 6x\sin x + 6\cos(x) + c$

12) $\int x\cdot 5^x dx = x\frac{5^x}{\ln 5} - \int\frac{5^x}{\ln 5}dx = x\frac{5^x}{\ln 5} - \frac{1}{\ln 5}\cdot\frac{5^x}{\ln 5} + c = \frac{5^x}{\ln 5}\left(x - \frac{1}{\ln 5}\right)$

$g(x) = x \quad | \quad g'(x) = 1$

$f'(x) = 5^x \quad | \quad f(x) = \frac{5^x}{\ln 5}$

13) $\int (x^3-3x-1)e^x dx = (x^3-3x-1)e^x - \int (3x^2-3)e^x dx = \cancel{(x^3-3x-1)e^x} -$

$g(x) = x^3-3x-1 \quad | \quad g'(x) = 3x^2-3 \qquad g(x) = 3x^2-3 \quad | \quad g'(x) = 6x$

$f'(x) = e^x \quad | \quad f(x) = e^x \qquad f'(x) = e^x \quad | \quad f(x) = e^x$

$= (x^3-3x-1)e^x - (3x^2-3)e^x - \int 6x e^x dx = e^x(x^3-3x-1-3x^2-3+6x) - \int 6e^x dx$

$g(x) = 6x \quad | \quad g'(x) = 6$

$f'(x) = e^x \quad | \quad f(x) = e^x$

$= e^x(x^3-3x^2+3x-4) - 6e^x + c = e^x(x^3-3x^2+3x-10) + c$

14) $\int (x-1)^3 \log_2 x \, dx = \log_2 x \frac{(x-1)^4}{4} - \int \frac{1}{x \ln 2} \frac{(x-1)^4}{4} = \frac{1}{4}\log_2 x (x-1)^4 - \frac{1}{4\ln 2}\int \frac{(x-1)^4}{x} dx$

$g(x) = \log_2 x \quad | \quad g'(x) = \frac{1}{x \ln 2}$

$f'(x) = (x-1)^3 \quad | \quad f(x) = \frac{(x-1)^4}{4 \cdot 1}$

$= \frac{1}{4}\log_2 x(x-1)^4 - \frac{1}{4\ln 2}\int \frac{1}{x}(x^2-2x+1)(x^2-2x+1)dx$

$= \frac{1}{4}\log_2 x(x-1)^4 - \frac{1}{4\ln 2}\int \frac{1}{x}(x^4-4x^3+2x^2+4x^2-4x+1)dx$

$= \frac{1}{4}\log_2 x(x-1)^4 - \frac{1}{4\ln 2}\int \left(x^3-4x^2+6x-4+\frac{1}{x}\right)dx$

$= \frac{1}{4}\log_2 x(x-1)^4 - \frac{1}{4\ln 2}\left(\frac{x^4}{4} - \frac{4x^3}{3} + \frac{6x^2}{2} - 4x + \ln|x|\right)dx$

$\boxed{15)}$ $\int \ln(x^2+1)dx = \int \cancel{\ldots} \cdot \ln(x^2+1) 2x \cdot \frac{1}{2x} dx =$

$e^{\ln(x^2+1)} = x^2+1$

$\boxed{16)}$ $\int x \operatorname{arctg}(x) dx = \operatorname{arctg}(x)\frac{x^2}{2} - \int \frac{1}{1+x^2} \cdot \frac{x^2}{2} dx = \ldots - \int$

$g(x) = \operatorname{arctg}(x) \quad | \quad g'(x) = \frac{1}{1+x^2}$

$f'(x) = x \quad | \quad f(x) = \frac{x^2}{2}$

17) $\int e^x \sin x \, dx = e^x \sin(x) - \int e^x \cos(x) dx = e^x \sin(x) - (e^x \cos(x) + \int e^x \sin(x) dx)$

$g(x) = \sin(x) \quad | \quad g'(x) = \cos(x) \qquad g(x) = \cos(x) \quad | \quad g'(x) = -\sin(x)$

$f'(x) = e^x \quad | \quad f(x) = e^x \qquad f'(x) = e^x \quad | \quad f(x) = e^x$

$2\int e^x \sin(x) dx = e^x(\sin(x) - \cos(x)) + c \Rightarrow \int e^x \sin(x) dx = e^x \frac{\sin(x) - \cos(x)}{2} + c$

15) $\int \ln(x^2+1) \cancel{\ldots} dx = \int 1 \cdot \ln(x^2+1) dx = x\ln(x^2+1) - \int \frac{2x^2}{x^2+1} dx =$

$g(x) = \ln(x^2+1) \quad | \quad g'(x) = \frac{1}{x^2+1} \cdot 2x$

$f'(x) = 1 \quad | \quad f(x) = x$

$= x\ln(x^2+1) - 2\int \frac{x^2+1-1}{x^2+1} dx = x\ln(x^2+1) - 2\int \left(1 - \frac{1}{x^2+1}\right)dx = x\ln(x^2+1) - 2(x - \operatorname{arctg} x) + c$

$= x\ln(x^2+1) - 2x + 2\operatorname{arctg}(x) + c$

16) $\int x \,\mathrm{arctg}(x)\, dx = \frac{x^2}{2}\mathrm{arctg}(x) - \int \frac{1}{x^2+1}\frac{x^2}{2}dx = \frac{x^2}{2}\mathrm{arctg}(x) - \frac{1}{2}\int \frac{x^2+1-1}{x^2+1}dx$

$g(x) = \mathrm{arctg}(x) \;|\; g'(x) = \frac{1}{x^2+1}$

$f'(x) = x \;|\; f(x) = \frac{x^2}{2}$

$= \frac{x^2}{2}\mathrm{arctg}(x) - \frac{1}{2}\int 1 - \frac{1}{x^2+1}dx = \frac{x^2}{2}\mathrm{arctg}(x) - \frac{1}{2}\left(x - \mathrm{arctg}(x)\right)$

$= \frac{1}{2}\left(\mathrm{arctg}(x)(x^2+1) - x\right) + c$

18) $\int \sin(x)\cdot \mathrm{ch}(x)\, dx = \sin(x)\cdot \mathrm{sh}(x) - \int \cos(x)\,\mathrm{sh}(x)dx = \sin(x)\mathrm{sh}(x) - \cos x\,\mathrm{ch}(x) + \int \sin(x)\,\mathrm{ch}(x)dx$

$g(x) = \sin(x) \;|\; g'(x) = \cos x$ $\qquad g(x) = \cos(x) \;|\; g'(x) = -\sin(x)$

$f'(x) = \mathrm{ch}\, x \;|\; f(x) = \mathrm{sh}\, x$ $\qquad f'(x) = \mathrm{sh}(x) \;|\; f(x) = \mathrm{ch}(x)$

$\Rightarrow 2\int \sin(x)\,\mathrm{ch}(x)\,dx = \sin(x)\,\mathrm{sh}(x) - \cos(x)\,\mathrm{ch}(x)$

$\int \sin(x)\,\mathrm{ch}(x)\,dx =$

18) $\int (5x-4)^6 dx = \frac{1}{5}\int (5x-4)^6\cdot 5\,dx = \frac{1}{5}\frac{(5x-4)^7}{7} + c = \frac{1}{35}(5x-4)^7 + c$

~~Binomiális tétel~~ $\cancel{(a+b)^n = \sum}$

20) $\int \cos(7x+2)dx = \frac{1}{7}\int \cos(7x+2)\cdot 7dx = \frac{1}{7}\sin(7x+2) + c$

21) $\int \frac{1}{\mathrm{ch}^2(3x+1)}dx = \frac{1}{3}\int \frac{1}{\mathrm{ch}^2(3x+1)}\cdot 3 = \frac{1}{3}\mathrm{th}(3x+1) + c$

22) $\int \frac{\mathrm{th}^5 x}{\mathrm{ch}^2 x}dx = \int\left(\frac{1}{\mathrm{ch}^2 x}\cdot \mathrm{th}^5 x\right)dx = \mathrm{th}^6 x - \int 5\,\mathrm{th}^5 x\, dx = \mathrm{th}^6 x - 5\frac{\mathrm{th}^6 x}{6} + c$

$g(x) = \mathrm{th}^5 x \;|\; g'(x) = 5\,\mathrm{th}^4 x$

$f'(x) = \frac{1}{\mathrm{ch}^2 x} \;|\; f(x) = \mathrm{th}\, x$

$= \mathrm{th}^6 x\left(1 - \frac{5}{6}\right) + c$

23) $\int \frac{x}{\sqrt[5]{x^2-1}}dx = \frac{1}{2}\int 2x(x^2-1)^{-5}dx = \frac{1}{2}\frac{(x^2-1)^{-4}}{-4} + c = \frac{-1}{8(x^2-1)^{-4}} + c$

24) $\int (x+1)\sqrt{x^2+2x-3}\,dx = \frac{1}{2}\int (x^2+2x-3)^{\frac{1}{2}}(2x+2)dx = \frac{2}{3}(x^2+2x-3)^{\frac{3}{2}} + c$

25) $\int \frac{\ln^2 x}{x}dx = \int \ln(x)^2\frac{1}{x}dx = \frac{\ln^3(x)}{3} + c$

26) $\int \frac{2x-1}{x^2-x+8}dx = \ln|x^2-x+8| + c$

27) $\int \frac{x^2}{x^3+1}dx = \frac{1}{3}\ln|x^3+1| + c$

28) $\int \frac{e^x+1}{e^x+x}dx = \ln|e^x+x| + c$

29) $\int tg\, x\, dx = \int \frac{\sin x}{\cos x} dx = -\ln|\cos x| + c$

30) $\int \frac{1}{x \ln x} dx = \int \frac{1}{x} \cdot \frac{1}{\ln x} dx = \int \frac{\frac{1}{x}}{\ln x} dx = \ln|\ln x| + c$

31) $\int x \cdot e^{-x^2} dx = \frac{1}{-2} \int (-2)x \cdot e^{-x^2} = \frac{-1}{2} e^{-x^2}$

32) $\int \frac{ctg^3 x}{\sin^2 x} dx = \int ctg^3 x \cdot \frac{1}{\sin^2 x} dx = \frac{ctg^4 x}{4} + c$

33) $\int 2^{ch\, x} \cdot sh\, x\, dx = \cancel{sh} \frac{2^{ch\, x}}{\ln 2} + c$

$\cancel{\log_2 2^{ch\, x} = ch\, x}$

34) $\int \frac{\arcsin^2 x}{\sqrt{1-x^2}} dx = \int \arcsin^2 x \cdot \frac{1}{\sqrt{1-x^2}} dx = \frac{\arcsin^3 x}{3} + c$

$\cancel{35)}$ $\int \sqrt{4x^2+4x+5}\, dx = \cancel{\int \left(\sqrt{4x^2+4x+5} \cdot (8x+4) \frac{1}{8x+4}\right) dx}$

$\cancel{4x^2+4x+5=0}$

$\cancel{36)}$ $\cancel{\sqrt{4x\left(x+1+\frac{5}{4x}\right)}}$

Anal leadandó integrálás 2. Ellák

1) $\int \left(x^2 + \sqrt[5]{x^2} - 2^x + \frac{1}{x \ln 3} + \ln \pi - \frac{1}{\sin^2 x}\, dx\right) = \frac{x^3}{3} + \frac{5}{7} x^{\frac{7}{5}} - 2^x \cdot \frac{1}{\ln 2} + \ln|x| \cdot \frac{1}{\ln 3} + \ln \pi \cdot x + ctg\, x + c$

2) $\int \left(5x^7 - \frac{2}{x^3} - 3 \cdot \sqrt[3]{x} - \sin x\right) dx = \frac{5}{8} x^8 + \frac{1}{x^2} - \frac{3}{4} x^{\frac{4}{3}} + \cos x + c$ $\quad 2 \cdot x^{-3}$

3) $\int \sqrt{x^3 \cdot \sqrt{x}}\, dx = \int \left(x^3 \cdot x^{\frac{1}{2}}\right)^{\frac{1}{2}} dx = \int x^{\frac{7}{4}} dx = \frac{4}{11} x^{\frac{11}{4}} + c$

4) $\int \left(\frac{1-x}{x}\right)^2 dx = \int \left(\frac{1}{x} - 1\right) dx = \ln|x| - x + c$

5) $\int \frac{4}{e^{2x}}\, dx = \int 4 \cdot e^{-2x}\, dx = 4 \int e^{-2x}\, dx = 4\left(-\frac{1}{2}\right) \int \left(e^{-2x} \cdot (-2)\right) dx = (-2) \cdot e^{-2x} + c$

$\left(e^{-2x}\right)' = (-2)\, e^{-2x}$

6) $\int \frac{arc\, tg\, x}{1+x^2}\, dx = \int \left(arc\, tg\, x \cdot \frac{1}{1+x^2}\right) dx = \frac{1}{2} arc\, tg^2\, x + c$

$\alpha = 1$

7) $\int \frac{4 \sin x}{5 \cos x + 4}\, dx = \left(-\frac{4}{5}\right) \int \frac{-5 \sin x}{5 \cos x + 4}\, dx = \left(-\frac{4}{5}\right) \ln|5 \cos x + 4| + c$

8) $\int \frac{1}{x} \cos(\ln x)\, dx = \sin(\ln x) + c$

9) $\int (\sin x)^4 \cos x\, dx = \frac{1}{5} \sin^5 x + c$

9) $\int (\sin x)^4 \cos x \, dx = \cancel{\frac{4}{4}}\, \frac{1}{5} \sin^5 x + c$

10) $\int \frac{\cos\sqrt{x}}{\sqrt{x}}\, dx = 2\int \left(\cos\sqrt{x} \cdot \frac{1}{2\sqrt{x}}\right) dx = \cos^2\sqrt{x} + c$

12) $\int \sin(2x-5)\, dx = \frac{1}{2} \int \sin(2x-5)\cdot 2 \, dx = \frac{1}{2} \cos(2x-5) + c$

13) $\int \frac{2x-6}{x^2-6x+8}\, dx = \ln|x^2-6x+8| + c$

14) $\int \frac{1}{e^x+e^{-x}}\, dx = \frac{1}{2} \int \frac{2}{e^x+e^{-x}}\, dx = \frac{1}{2} \int \frac{1}{\cosh(x)}\, dx$

$(e^x+e^{-x})^2 = e^x + e^{-x} = e^x + \frac{1}{e^x} = \frac{e^{2x}+1}{e^x}$

15) $\int x \sin x \, dx = (-x)\cos x + \int \cos x \, dx = (-x)\cos(x) + \sin x + c$

$g(x) = x$	$g'(x) = 1$
$f'(x) = \sin x$	$f(x) = -\cos x$

16) $\int x \cdot e^{3x}\, dx = \frac{1}{3} x e^{3x} - \frac{1}{3} \int e^{3x}\, dx = \frac{1}{3} x e^{3x} - \frac{1}{9} e^{3x} + c = e^{3x}\left(\frac{1}{3}x - \frac{1}{9}\right) + c$

$g(x) = x$	$g'(x) = 1$
$f'(x) = e^{3x}$	$f(x) = \frac{1}{3} e^{3x}$

17) $\int x^2 e^{3x}\,dx = \frac{1}{3}x^2 e^{3x} - \frac{2}{3}\int x e^{3x}\,dx = \frac{1}{3}x^2 e^{3x} - \frac{2}{9} x e^{3x} - \frac{1}{3}\int e^{3x}\,dx = \frac{1}{9} e^{3x}(3x^2 - 2x - 1) + c$

$g(x) = x^2 \mid g'(x) = 2x \qquad g(x) = x \mid g'(x) = 1$

$f'(x) = e^{3x} \mid f(x) = \frac{1}{3}e^{3x} \qquad f'(x) = e^{3x} \mid f(x) = \frac{1}{3}e^{3x}$

18) $\int \ln x\,dx = \int 1\cdot \ln x\,dx = x\ln x - \int x\frac{1}{x}\,dx = x\ln x - x + c = x(\ln x - 1) + c$

$g(x) = \ln x \mid g'(x) = \frac{1}{x}$

$f'(x) = 1 \mid f(x) = x$

19) $\int x \ln x\,dx = \frac{1}{2}x^2 \ln(x) - \frac{1}{2}\int x^2 \frac{1}{x}\,dx = \frac{1}{2}x^2 \ln x - \frac{1}{4}x^2 + c = \frac{1}{2}x^2\left(\ln x - \frac{1}{2}\right) + c$

$g(x) = \ln(x) \mid g'(x) = \frac{1}{x}$

$f'(x) = x \mid f(x) = \frac{1}{2}x^2$

20) $\int \operatorname{arctg}(5x)\,dx = x \operatorname{arctg}(5x) - \int \frac{5x}{1+25x^2}\,dx = x \operatorname{arctg}(5x) - \frac{1}{10}\int \frac{50x}{25x^2+1}\,dx$

$= x \operatorname{arctg}(5x) - \frac{1}{10}\ln|25x^2+1| + c$

$g(x) = \operatorname{arctg}(5x) \mid g'(x) = \frac{5}{1+25x^2}$

$f'(x) = 1 \mid f(x) = x$

21) $\int e^x \sin x\,dx$ → már egyszer megcsináltam (1. lap 17. feladat)

22) $\int \frac{x+1}{x^2+3x+2}\,dx = \int \frac{x+1}{(x+1)(x+2)}\,dx$?

21) $\int e^x \cdot \sin x \, dx$ => már egyszer megcsináltam (1. lap 17. feladat)

$\boxed{22)}$ $\int \frac{x+1}{x^2-3x+2} dx = \int \frac{x+1}{(x-1)(x-2)} dx$?

23) $\int \frac{1}{(3x-5)^5} = \frac{1}{3}\int (3x-5)^{-5} \cdot 3 = \frac{1}{3} \cdot \left(-\frac{1}{4}\right) \cdot (3x-5)^{-4} = \frac{-1}{12(3x-5)^4} + c$

24) $\int \cos\left(\frac{2x-1}{3}\right) dx = \frac{3}{2}\int \cos\left(\frac{2}{3}x-1\right) \cdot \frac{2}{3} = \frac{3}{2}\sin\left(\frac{2x-1}{3}\right) + c$

25) $\int (9x^2-2)(3x^3-2x)^7 dx = (3x^3-2x)^8 \cdot \frac{1}{8} + c$

26) $\int \left(2^x \cdot \sqrt{2+2^x}\right) dx = \cancel{\int \left(2^x \cdot 2^{\frac{1}{2}} + 2^x \cdot 2^{\frac{x}{2}}\right) dx = \int \left(2^{x+\frac{1}{2}} + 2^{\frac{3x}{2}}\right) dx}$
$= \frac{1}{\ln 2}\int \left((2^x+2)^{\frac{1}{2}} \cdot 2^x \cdot \ln 2\right) dx = \frac{2}{3}(2^x+2)^{\frac{3}{2}} \cdot \frac{1}{\ln 2} + c$

27) $\int \frac{2\sin x}{\sqrt[3]{\cos^2 x}} dx = -2\int \left(\cos^{-\frac{2}{3}} x \cdot \sin x\right) dx = -2\cos^{\frac{1}{3}} x + c = -2\sqrt[3]{\cos x} + c$

28) $\int \operatorname{tg} x \, dx$ => már egyszer megcsináltam (lásd 1. lap 25. feladat)

29) $\int \frac{\cos 2x}{\sin^2 x + 3} dx = \ln|\sin^2 x + 3| + c$

30) $\int \frac{e^{\operatorname{ctg} x}}{\sin^2 x} dx = e^{\operatorname{ctg} x} + c$

31–40 behelyettesítéssel oldható meg