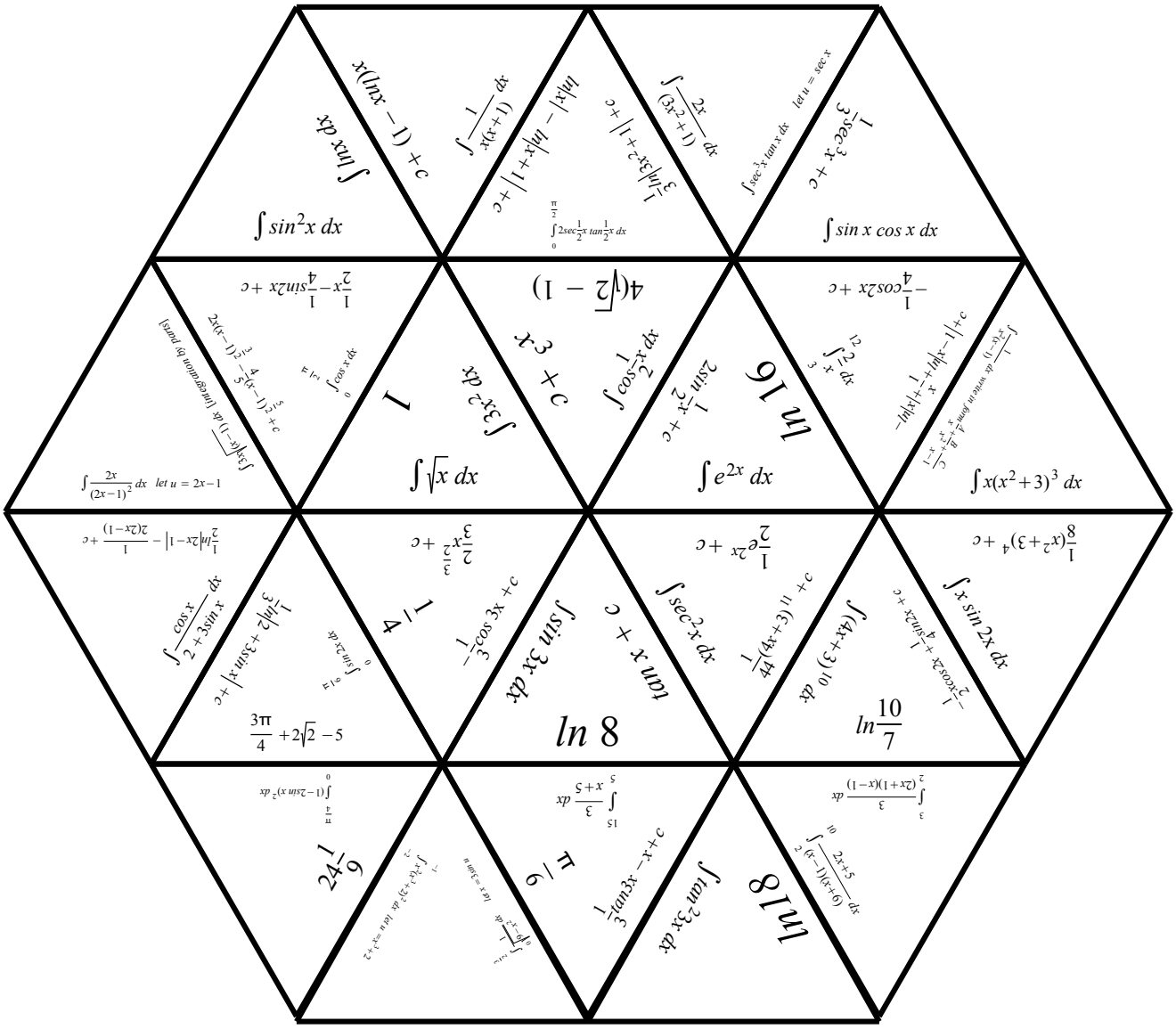
$\int \ln x\,dx$
$x(\ln x - 1) + c$
$\int \frac{1}{x(x+1)}\,dx$
$\ln|x| - \ln|x+1| + c$
$\int \frac{2x}{(3x^2+1)}\,dx$
$\frac{1}{3}\ln|3x^2+1| + c$
$\int \sec^{\frac{3}{2}}x \tan x\,dx \quad let\ u = \sec x$
$\frac{1}{3}\sec^3 x + c$
$\int \sin^2 x\,dx$
$\int_0^{\frac{\pi}{2}} 2\sec\frac{1}{2}x \tan\frac{1}{2}x\,dx$
$\int \sin x \cos x\,dx$
$\frac{1}{2}x - \frac{1}{4}\sin 2x + c$
$4(\sqrt{2}-1)$
$-\frac{1}{4}\cos 2x + c$
$\int_0^{\frac{\pi}{4}} \cos x\,dx$
$\int 3x^2\,dx$
$x^3 + c$
$\int \cos\frac{1}{2}x\,dx$
$2\sin\frac{1}{2}x + c$
$\int_3^{12} \frac{1}{x^2}\,dx$
$\ln 16$
$\int_{-2}^{-1} \frac{1}{x^2+x}\,dx$ $\text{write in form } \frac{A}{x} + \frac{B}{x+1}$
$\ln|x| - \ln|x+1| + c$
$\int \frac{2x}{(2x-1)^2}\,dx \quad let\ u = 2x-1$
$\int 3x\sqrt{(x-1)}\,dx$ $\text{[integration by parts]}$
$\int \sqrt{x}\,dx$
$\int e^{2x}\,dx$
$\int x(x^2+3)^3\,dx$
$\frac{1}{2}\ln|2x-1| - \frac{1}{2(2x-1)} + c$
$\frac{2}{3}x^{\frac{3}{2}} + c$
$\int \frac{\cos x}{2+3\sin x}\,dx$
$\frac{1}{3}\ln|2+3\sin x| + c$
$\int_0^{\frac{\pi}{4}} \sin 2x\,dx$
$\frac{1}{4}$
$-\frac{1}{3}\cos 3x + c$
$\int \sin 3x\,dx$
$\frac{1}{2}e^{2x} + c$
$\int \sec^2 x\,dx$
$\tan x + c$
$\frac{1}{44}(4x+3)^{11} + c$
$\int (4x+3)^{10}\,dx$
$\frac{1}{8}(x^2+3)^4 + c$
$\int x \sin 2x\,dx$
$\frac{3\pi}{4} + 2\sqrt{2} - 5$
$ln\,8$
$ln\frac{10}{7}$
$-\frac{1}{2}x\cos 2x + \frac{1}{4}\sin 2x + c$
$\int_0^{\frac{\pi}{4}} (1 - 2\sin x)^2\,dx$
$\int_5^{15} \frac{3}{x+5}\,dx$
$\int_2^3 \frac{3}{(2x+1)(x-1)}\,dx$
$24\frac{1}{6}$
$\int_{-1}^{1} x^2(x+2)^2\,dx \quad let\ u = x^2+2$
$\int \frac{1}{\sqrt{9-x^2}}\,dx \quad let\ x = 3\sin u$
$\frac{\pi}{6}$
$\frac{1}{3}\tan 3x - x + c$
$\int \tan^2 3x\,dx$
$\int_2^{10} \frac{2x+5}{(9+x)(x-1)}\,dx$
$ln\,8$