EK 4

İNTEGRALLER TABLOSU

1. $\int udv = uv - \int vdu$
2. $\int a^u du = \frac{a^u}{\ln a} + C,\ a > 0, a \neq 1$
3. $\int \cos u du = \sin u + C$
4. $\int \sin u du = -\cos u + C$
5. $\int \sec^2 u du = \tan u + C$
6. $\int \csc^2 u du = -\cot u + C$
7. $\int u^a du = \frac{u^{a+1}}{a+1} + C,\ a \neq -1$
8. $\int \frac{du}{u} = \ln|u| + C$
9. $\int f(u)du = \int f(u(t))\, u'(t)dt + C$
10. $\int \frac{du}{a^2+u^2} = \frac{1}{a} \arctan \frac{u}{a} + C$
11. $\int \frac{du}{u^2-a^2} = \frac{1}{2a} \ln \left|\frac{u-a}{u+a}\right| + C$
12. $\int \frac{du}{\sqrt{a^2+u^2}} = \operatorname{arcsin} h \frac{u}{a} + C = \ln \left|u + \sqrt{a^2+u^2}\right| + C$
13. $\int \frac{du}{\sqrt{a^2-u^2}} = \arcsin \frac{u}{a} + C$
14. $\int \sqrt{a^2-u^2} du = \frac{u}{2}\sqrt{a^2-u^2} + \frac{a^2}{2} \arcsin \frac{u}{a} + C$