UDS

Universidad Del Sureste

6to Cuatrimestre Bachillerato
Administración De Recursos Humanos

MATEMATICA APLICADA

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Matematicas aplicadas

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1. $\frac{d}{dx}[f(x)]dx = f(x) + C$

2. $\int (u+v)dx = \int u\,dx + \int v\,dx$

3. $\int au\,dx = a\int u\,dx$

4. $\int u^2\,du = \frac{u^{n+1}}{m+1} + C.\ m = -1$

5. $\int \frac{du}{u} = \ln|u| + C$

6. $\int a^2\,du = \frac{a^2}{\ln a} + C.\ a > 0.\ a = 1$

7. $\int e^2\,du = e^2 + C$

8. $\int \text{sen}\,u\,du = -\cos u + C$

9. $\int \cos u\,du = \text{sen}\,u + C$

10. $\int \text{tag}\,u\,du = -\ln|\sec u| + C$

11. $\int \text{cot}\,u\,du = \ln|\text{sen}\,u| + C$

12. $\int \text{Sec}\,u\,du = \ln|\text{nec}\,u + \text{tag}\,u| + C$

13. $\int \frac{1}{\cos u}\,du = \ln\left|\frac{1+\text{sen}\,u}{\cos u}\right| + C$

14. $\int \text{lsc}\,u\,du = \ln|\text{csc}\,u - \text{cot}\,u| + C$

15. $\int \sec^2 u\,du = \int \frac{1}{\text{sen}^2 u}\,du = -\text{tag}\,u + C$

16. $\int \operatorname{cts}^2 u\, du = \int \frac{1}{\operatorname{sen}^2 u} = -\operatorname{cot} u + C$

17. $\int \sec u \tan u\, du = \sec u + C$

18. $\int \operatorname{csc} u \cot u\, du = -\operatorname{csc} u + C$

19. $\int \frac{du}{\sqrt{a^2 - u^2}} = \operatorname{arcsen} \frac{u}{a} + C$

20. $\int \frac{du}{\sqrt{a^2 + u^2}} = \frac{1}{a} \operatorname{arctg} \frac{u}{a} + C$

21. $\int \frac{du}{u\sqrt{u^2 - a^2}} = \frac{1}{a} \operatorname{arcsec} \frac{u}{a} + C$

22. $\int \frac{du}{u^2 - a^2} = \frac{1}{2a} \ln \left| \frac{u+a}{u-a} \right| + C$

23. $\int \frac{du}{a^2 - u^2} = \frac{1}{2a} \ln \left| \frac{a+u}{a-u} \right| + C$

24. $\int \frac{du}{\sqrt{u^2 + a^2}} = \ln \left(u + \sqrt{u^2 + a^2}\right) + C$

25. $\int \frac{du}{\sqrt{u^2 + a^2}} = \ln \left| u + \sqrt{u^2 - a^2} \right| + C$

26. $\int \sqrt{a^2 - u^2}\, du = \frac{1}{2} u \sqrt{a^2 - u^2} + \frac{1}{2} a^2 \operatorname{arcsen} \frac{u}{a} + C$

27. $\int \sqrt{u^2 + a^2}\, du = \frac{1}{2} u \sqrt{u^2 + a^2} + \frac{1}{2} a^2 \ln \left(u + \sqrt{a^2 + a^2}\right) + C$

28. $\int \sqrt{u^2 - a^2}\, du = \frac{1}{2} u \sqrt{u^2 - a^2} - \frac{1}{2} a^2 \ln \left| u + \sqrt{u^2 - a^2} \right| + C$