

Rewrite the Integral in terms of u

1. If  $\int_0^3 \sqrt{y+1} dy$  and  $u = y + 1$ , then

2. If  $\int_0^1 r\sqrt{1-r^2} dr$  and  $u = 1 - r^2$ , then

3. If  $\int_{-\pi}^0 \tan x \sec^2 x dx$  and  $u = \tan x$ , then

4. If  $\int_{-1}^1 \frac{5r}{(4+r^2)^2} dr$  and  $u = 4 + r^2$ , then

5. If  $\int_0^1 \frac{10\sqrt{\theta}}{(1+\theta^{\frac{3}{2}})^2} d\theta$  and  $u = 1 + \theta^{\frac{3}{2}}$ , then

---

6. If  $\int_{-\pi}^{\pi} \frac{\cos x}{\sqrt{4+3\sin x}} dx$  and  $u = 4 + 3\sin x$ , then

7. If  $\int_0^1 \sqrt{t^5 + 2t} (5t^4 + 2) dt$  and  $u = t^5 + 2t$ , then

8. If  $\int_0^{\frac{\pi}{6}} \cos^{-3} 2\theta \sin 2\theta d\theta$  and  $u = \cos 2\theta$ , then

9. If  $\int_0^1 \frac{x^3}{\sqrt{x^4+9}} dx$  and  $u = x^4 + 9$ , then

10. If  $\int_0^2 \frac{e^x}{3+e^x} dx$  and  $u = 3 + e^x$ , then