

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