

1.  $\frac{3}{2+3\pi}x^{2/3+\pi} - \frac{3}{2-3\pi}x^{2/3-\pi} + C$
2.  $-\frac{1}{\ln t} + C$
3.  $4 \ln |p| + 3 \ln |p + 2| + \frac{2}{(p+2)} + C$
4.  $\frac{1}{10}(2x + 3)^{5/2} - \frac{1}{2}(2x + 3)^{3/2} + C$
5.  $\frac{1}{2}[\Theta^2 \sin(\Theta^2) + \cos(\Theta^2)] + C$
6.  $\frac{w^2}{2} - w + \arctan\left(\frac{w+3}{2}\right) + C$