

1. $50/3$

2. $-\frac{t^2}{2} + 4t + 1$

3. $-\frac{4}{5x} - \frac{2\sqrt{x}}{3} + 2x - \frac{9x^{4/3}}{2} + C$

4. $\frac{3x^{10/3}}{5} - \frac{30x^{11/6}}{11} + \frac{42x^{5/6}}{5} + C$

5. $\frac{2}{3} \sec(3\theta) + C$

6. $\frac{7}{3} - \frac{98\sqrt{14}}{81}$

7. $-\frac{3}{8} \left(\frac{1}{\sqrt{2}}\right)^8 + \frac{3}{8} = \frac{525}{2048}$

8. $-\cos x \sqrt{\sin^2 x - \sin x + 2}$

9. i) 19 ii) -27 iii) 92 iv) 4