

Assignment 4

Answers

1. ANS:

$$\ln(e^x + 9) + C$$

2. ANS:

$$\ln\left(\left|\frac{(x-5)^2}{(x+9)}\right|\right) + C$$

3. ANS:

$$3\theta \cdot \tan(\theta) - 3\ln(|\sec(\theta)|) + C$$

4. ANS:

$$\frac{19x \cdot e^{3x}}{3} - \frac{19e^{3x}}{9} + C$$

5. ANS:

$$\frac{(\sin(x))^7}{7} - \frac{(\sin(x))^9}{9} + C$$

6. ANS:

$$\frac{1}{15} \cdot (\cos(3x))^5 - \frac{1}{9} \cdot (\cos(3x))^3 + C$$

7. ANS:

$$\frac{1}{2} \cdot (\sec(x))^2 + C$$

8. ANS:

$$18 - \frac{81\sqrt{3}}{8}$$

9. ANS:

$$\frac{x^2}{2} - 3x + 9\ln(|x+3|) + C$$

10. ANS:

$$\frac{1}{2} \cdot x^2 \cdot \ln(x) - \frac{1}{4} \cdot x^2 + C$$

11. ANS:

$$-\frac{1}{3} \cdot \sin(4-t^3) + C$$

12. ANS:

$$\frac{1}{5} \cdot e^{\frac{5\pi}{4}} - \frac{1}{5} \cdot e^{-\frac{5\pi}{4}}$$

13. ANS:

$$\frac{1}{36} \cdot \frac{\sqrt{x^2-36}}{x} + C$$