

Basic Substitution Tutorial: Answers

1. $\frac{(x^2 + 1)^5}{10} + C$

2. $-\ln|\cot x + 3| + C$

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

4. $-\ln|1 - \sin \theta| + C$

5. $-e^{1/x} + C$

6. $-2\sqrt{1 - \sec \theta} + C$

7. $-\frac{1}{6(x^2 + x)^6} + C$

8. $\sec y + C$

9. $\frac{1}{2}\ln|1 + e^{2x}| + C$ (and you can omit the absolute value signs if you wish)

10. $-\frac{1}{2}\cos x^2 + C$

11. $-\frac{1}{4}\left(1 + \frac{1}{t}\right)^4 + C$

12. $\cos(e^{-t}) + C$

13. $\ln|\theta - \sin \theta| + C$

14. $\frac{1}{2}(\sin^{-1} x)^2 + C$

15. $-e^{-\tan x} + C$