

Homework 13 Final Answers

1 (a) and (b) $-\frac{20}{3}$

11. $-\frac{1}{\sin x} + C$

2. $-\frac{(1-x^3)^8}{24} + C$

12. $\frac{2}{3} \sin\left(9 + x^{\frac{3}{2}}\right) + C$

3. $\frac{-1}{35(x^5-3)^7} + C$

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

4. $\frac{1}{3} \sec(3x) + C$

14. $-\frac{\sqrt{3}}{4}$

5. $\frac{1}{3} \sin(x^3 - 6) + C$

15. 9

6. $-\tan\left(\frac{1}{x}\right) + C$

16. $\frac{1}{3}$

7. $-\frac{\cos^5 x}{5} + C$

17. Answer in words

8. $-\frac{1}{3}(4-x^2)^{\frac{3}{2}} + C$

18 (a) Displacement $-\frac{9}{2}$

9. $-\sqrt{4-x^2} + C$

18 (b) Total Distance $\frac{15}{2}$

10. $-2 \cos \sqrt{x} + C$