

Section 7.4 – Trigonometric Substitutions
NOT ON AP EXAM!

Evaluate the integral.

1. $\int \sqrt{4-x^2} dx$

3. $\int \frac{x^2}{\sqrt{16-x^2}} dx$

5. $\int \frac{dx}{(4+x^2)^2}$

7. $\int \frac{\sqrt{x^2-9}}{x} dx$

9. $\int \frac{3x^3}{\sqrt{1-x^2}} dx$

11. $\int \frac{dx}{x^2\sqrt{9x^2-4}}$

17. $\int \frac{dx}{(4x^2-9)^{3/2}}$

19. $\int e^x \sqrt{1-e^{2x}} dx$

23. $\int_{\sqrt{2}}^2 \frac{dx}{x^2\sqrt{x^2-1}}$

25. $\int_1^3 \frac{dx}{x^4\sqrt{x^2+3}}$

37. $\int \frac{dx}{x^2-4x+5}$

39. $\int \frac{dx}{\sqrt{3+2x-x^2}}$