Notes: Trigonometric Integrals Additional Techniques of Integration Day 1

Review: $\int sinxcos^5 x \ dx$

Review: Pythagorean Identities

	Identities	Rewrite	Rewrite
1.			
2.			
3.			

One Piece is Odd ☺

Example One: $\int sin^3 x \ dx$

Example Two: $\int sin^4 x cos^5 x \ dx$

Notes: Trigonometric Integrals Additional Techniques of Integration Day 1

Review: Double-Angle Formulas

sin^2x		
cos^2x		

No Piece is Odd ☹

Example Three: $\int sin^2x \ \ dx$

Example Four: $\int sin^4x \, dx$

Example Five: $\int sin^2xcos^4x \ \ dx$

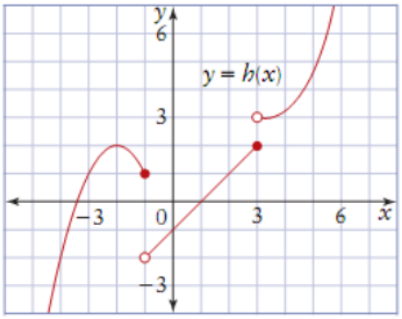
Notes: Trigonometric Integrals Additional Techniques of Integration Day 1

More Practice: Definite Integrals

1. $\int_0^{\frac{\pi}{2}} sin^7 x \ dx$

2. $\int_{\frac{\pi}{2}}^{\pi} sin^2 y cos^2 y \ dy$

Review of Limits



a) $\lim_{x \to -1^-} h(x)$

b) $\lim_{x \to -1^+} h(x)$

c) $\lim_{x \to -1} h(x)$

d) $h(-1)$

e) $\lim_{x \to 3^-} h(x)$

f) $\lim_{x \to 3^+} h(x)$

g) $\lim_{x \to 3} h(x)$

h) $h(3)$