

Exam 2

INTEGRATION BY PARTS	TRIG INTEGRALS	TRIG SUB	PARTIAL FRACTIONS	APPROX INTEGRATION	RANDOM
$\int u dv = uv - \int v du$	$1 - \sin^2(x)$	$x = a \sin(\theta)$	$A/x - 5 + B/x + 3$	Midpoint, Trapezoid, Simpson	One Direction
LIPET or LIATE	$1/\tan(x)$ OR $\cos(x)/\sin(x)$	$x = a \sec(\theta)$	$3 \ln x-5 + 2 \ln x+3 + C$	$(b-a)/n$	Hawkins, IN
$u=x, dv=e^x dx \Rightarrow du=dx, v=e^x$	Make $\cos^3$ even!	$x=4 \tan(\theta)$	$\ln x -2 \ln x-2 -2/x-2 + C$	3.7070	Taylor Lautner
$x \sin(x) + \cos(x) + C$	$2 \tan(z) - 7(-u^{-1} - u) + C$	$1/3 \ln \sqrt{9(x-2)^2+1}+3(x-2) + C$	$A=2 \quad B=6 \quad C=-2$	-2.4300	Nick, Joe, & Kevin
$-4/3 x \sin(2-3x) + 4/9 \cos(2-3x) + C$	$2/315(8+13\sqrt{\sin^2(z)-1})$	$[\sin^2(z) - 1] \sqrt{\sin^2(z)-1} + \sqrt{1-\sin^2(z)}$	$-w^2/2 + 2/9 \ln w -83/18 \ln w^2+9 + C$	.3715	Jack (the pumpkin king)