

FLORIDA ASSOCIATION OF MU ALPHA THETA  
STATE CONVENTION  
1987

BOWL ANSWERS

QUESTION	CALCULUS	ALPHA	THETA
1	7	(5,0) & (7,4)	55,540,000
2	range [-1, 1]	$3\sqrt{3/2}\pi$	$\frac{14\sqrt{3} + 7\sqrt{3}\pi}{2}$
3	$\ln  \sec x + \tan x  + C$	-560	48
4	-1	$\pi/3$	7676
5	$\frac{(75\sqrt{3})}{11}$	4/13	$-\frac{4}{15}$
6	232	$y = -5/2x + 1/2$	4096
7	$16\pi/3$	15	$2\sqrt{29} + 20$
8	$\frac{7}{11} \tan^{-1}(\frac{x}{11}) + C$	-7	$-27/343$
9	no: $27\frac{3}{4}$ ft	11/4	1
10	$3e^{-5}$	20	-1
11	see below	$32z^5 x^3$	$\frac{11}{71}$
12	15	240	$\frac{1}{13}$

$\rightarrow \frac{1}{3} (\sin(4x + \sqrt{2x+17}))^{-\frac{2}{3}} \cdot (\cos(4x + \sqrt{2x+17})) \cdot (4 + (2x+17))$