

SCHOOL

Key

WORCESTER POLYTECHNIC INSTITUTE

FIFTEENTH ANNUAL INVITATIONAL MATH MEET

OCTOBER 17, 2002

TEAM EXAM ANSWER SHEET

QUESTION	ANSWER	SCORE	QUESTION	ANSWER	SCORE
1	$400\pi cm^2$		8	$-3, \frac{3}{2} \pm \frac{3\sqrt{3}}{2}i$	
2	$2\sqrt{\frac{25}{3\pi}}$ or $\sqrt{\frac{100}{3\pi}}$		9	4 : 1	
3	6		10	$\alpha = \frac{\theta}{3}$	
4	$e^{-\pi/2}$		11	23,900	
5	$x = \frac{\sqrt{3}}{4}, y = -\frac{1}{4}, z = \frac{\sqrt{3}}{2}$ or $(\frac{\sqrt{3}}{4}, -\frac{1}{4}, \frac{\sqrt{3}}{2})$		12	$3f(x)$	
6	$\frac{1}{z^4} + \frac{2}{z^2} + 2$		13	20 square inches	
7	$(2, 11)(5\sqrt{3} + 2, -4)$		14	$\frac{25}{2}$	

Team Total

# CORRECT $\times 3 =$	
Individual Totals	