

SCHOOL

Answer Key**WORCESTER POLYTECHNIC INSTITUTE**

EIGHTEENTH ANNUAL INVITATIONAL MATH MEET

OCTOBER 19, 2005

TEAM EXAM ANSWER SHEET

| QUESTION | ANSWER | SCORE | QUESTION | ANSWER | SCORE |
|----------|---|-------|----------|--|-------|
| 1 | $r = \frac{20\sqrt{3}}{3}$ | | 8 | 60° or $\frac{\pi}{3}$ radians | |
| 2 | a, e, g | | 9 | x , x^{x^x} , and x^x | |
| 3 | 8204 | | 10 | $\begin{bmatrix} \frac{1}{65536} & 0 \\ 0 & \frac{1}{65536} \end{bmatrix}$ | |
| 4 | $AD = \frac{\sqrt{3}}{4} AC$ | | 11 | $\frac{\sqrt{3}}{4} \text{ cm}^2$ | |
| 5 | $4595\frac{3469}{3600}$ or $4595.9636\bar{1}$ | | 12 | $f(2) = -23$ | |
| 6 | $(0, -5)$ | | 13 | $15\frac{1}{4}$ | |
| 7 | $\sqrt{x^2 - 1}$ | | 14 | $x = 1.5$ and $x = 2$ | |

Team Total

| | |
|--------------------------|--|
| # CORRECT $\times 3 =$ | |
| Individual Totals | |
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