

MIAMI KILLIAN - MIAMI SUNSET INVITATIONAL JANUARY 9, 1993

12

TEAM ANSWERS

ALGEBRA 2

1. $\{(-36, -8, -13)\}$
2. $-11/54$
3. $4/5$
4. $-16 + 8i$
5. $647/48$
6. $\{x: -5 < x \leq 8\} \cup \{x: 10 \leq x < 23\}$
7. $h + 4$
8. $A = -1$ and $B = 2$
9. 2.8 gallons
10. 4
11. $23/4$
12. $x^3 - 6x^2 + 13x - 10 = 0$
13. $15/56$
14. $277/290 + (279/290)i$
15. 256

PRE-CALC

1. 1
2. $\left\{-\frac{2\pi}{3}, -\frac{4\pi}{3}\right\}$
3. 2
4. 493
5. -210
6. $\left(\frac{31}{72}, \frac{13}{36}, \frac{23}{72}\right)$
7. $3\sqrt{10} + 2\sqrt{2}$
8. -5
9. $\frac{1}{10}$
10. 0
11. 4
12. $\frac{7\pi + 7\pi\sqrt{2}}{8}$
13. $\left(\frac{\sqrt{6}}{3}, -\frac{\sqrt{6}}{6}, \frac{\sqrt{6}}{6}\right)$
14. $\frac{31}{\sqrt{34}}$
15. 15,350

CALCULUS

1. b, c, & e
2. $\frac{27}{52}$
3. $\frac{3}{2}$
4. zero
5. 5 ft per sec
6. $\frac{c\sqrt[3]{a}}{\sqrt[3]{a} + \sqrt[3]{b}}$ or $\frac{b\sqrt[3]{a}}{\sqrt[3]{a} + \sqrt[3]{b}}$
7. $\frac{\pi}{8} - \frac{1}{2}$
8. ~~15~~ 75
9. $\frac{8}{3}$ inches
10. 11
11. $\frac{128}{3}$
12. $x + y = \frac{(2-\sqrt{2})r}{(\sqrt{2} + 1)r}$ and $x + y = (2-\sqrt{2})r$
13. $\left(\frac{2\pi+41}{\pi+13}, \frac{10\pi+52}{\pi+13}\right)$
14. zero
15. $\frac{3\pi}{4}$