AIME STRATEGY

1. READ ALL PROBLEMS VERY, VERY CAREFULLY.

2. BE AS NEAT AS POSSIBLE. THINK SOLUTION SET.

3. CHECK EVERYTHING DONE AFTER TWO HOURS, THOROUGHLY.

4. **CONCENTRATE FOR THREE HOURS STRAIGHT.**

must during test

Solution Set!

1) $\frac{1}{30} + \frac{2}{30} \cdots \frac{299}{30}$ = answer

$\frac{299 \cdot 300}{2}$ = answer

30

$\frac{299 \cdot 300}{60}$ = answer

$299 \cdot 5$

When ~~re~~ written in lowest terms.

3.5.2

$\frac{1}{30}, \frac{7}{30}, \frac{11}{30}, \frac{13}{30}, \frac{17}{30}, \frac{19}{30}, \frac{23}{30}, \frac{29}{30}$ = 0 to 1

$1 + 1 + 1 + 1 = 4$

$a_n = a_1 + (n-1)d$

0 to 1 = 4
1 to 2 = 8+4
2 to 3 = 8+12

4, 12, 20

$S_n = \frac{(a_1 + a_n)n}{2}$

$S_n = \frac{(a_1 + a_1 + (n-1)d)n}{2}$

$S_n = \frac{(4+4+9\cdot8)\cdot10}{2} = 5(72+8) = 5\cdot80$

$= 400$

1993 AIME

orig

1) 728 ✓ Ends in 0, 2, 4, 6, 8

$\overline{3 \cdot 8 \cdot 7}^{0}$

$\overline{3 \cdot 8 \cdot 7}^{2}$

$\overline{2 \cdot 8 \cdot 7}^{4}$

$\overline{2 \cdot 8 \cdot 7}^{6}$

$\overline{3 \cdot 8 \cdot 7}^{8}$

$(3 \cdot 8 \cdot 7)3 + 2(2 \cdot 8 \cdot 7)$

$56 \cdot 9 + 56 \cdot 4$

$504 + 224 = 728$

$56 \cdot 13 = 168 + 560 = 728$