

Unofficial AIME syllabus answers

Please send corrections to sean.markan@gmail.com. Thanks to Patrick Lopatto and Tony Zhang for past corrections.

- $(a, b) = (35 + 241k, -46 - 317k)$ for integers k
- 8
- 83°
- 630
- 4
- 149
- (m, w, c) is $(0, 20, 80)$, $(5, 11, 84)$, or $(10, 2, 88)$
- $16/45$
- $\binom{n-2}{k}$
- $\frac{16!}{2^8}$
- $7/72$
- $\binom{110}{10}$
- $17/28$
- $\binom{21}{10}$
- 15; 36
- $16^3 + 16^2 - 16 = 4336$
- 2^{99}
- 5
- 30
- $9/32$
- $1/84$
- 351
- 10
- $\frac{8!}{24}, \frac{12!}{60}$
- 871
- $25\sqrt{7}$
- $\frac{375}{442}$
- $2/\pi$
- $\text{cis}(\pi k/3)$ for $k = 1, 2, 3, 4, 5$
- $\text{cis}(2\pi k/17)$ for $k = 1, 2, \dots, 16$ and $\text{cis}(2\pi k/19)$ for $k = 1, 2, \dots, 18$
- $x + 1$
- $-135/8$
- (A)
- $-1/9$
- 249
- 17
- 10
- $1/4$
- $5/7$
- 6
- 8
- 18
- $1/\sqrt{5}$
- 73
- 6
- $1, 1/2, 1/4$
- 15
- 2310
- $\frac{1}{2}\binom{10}{5}, 38$
- 16
- 5
- (a) $4 \cdot \binom{13}{5}$
(b) $13 \cdot 12 \cdot \binom{4}{3} \cdot \binom{4}{2}$
(c) $13 \cdot 48$
(d) $\binom{13}{5} \cdot 4^5$
- 266
- $\frac{\binom{19}{10} - 10\binom{13}{4}}{6^{10}}$
- $7/8$
- $1/3$
- $5 \cdot \binom{10}{4} - 2 \cdot \binom{9}{3} = 882$
- $3/4$