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# 2009 AITMO Answers

## Individual

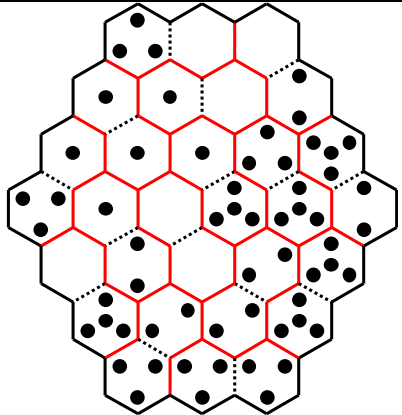
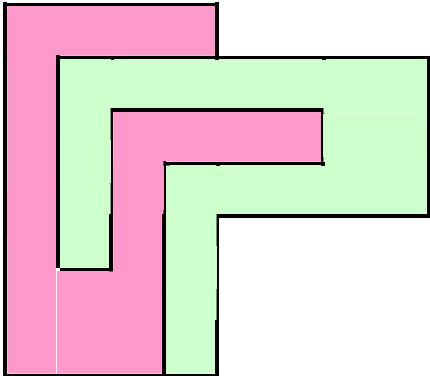
### Part I

1.	$7^{308} > 3^{539} > 2^{847}$ $> 5^{363} > 11^{242}$	2.	$6 + \sqrt{2}$	3.	24	4.	17
5.	25	6.	2, 8, 5	7.	194	8.	$2009(2 + \sqrt{2})$
9.	8	10.	24	11.	14	12.	13

### Part II

1.	$-4, -3, -2, -1, 1, 2, 3$ and 4	2.	35	3.	2 or 1
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### Team

1.	The largest value is 27 and the smallest value is $-1$	2.	$\frac{n(n^2 + 3n + 26)}{6}$	3.	2304
4.	12	5.	The total distance is $2^{2009} - 1$ and the ant stops at $B$	6.	
7.	$A, C, E, G, H, I, K$ and $L$	8.	The respective amounts were 980, 850, 1117, 956, 1260 and 2521 bezants.		
9.				10.	1.2