

**Math 105 TOPICS IN MATHEMATICS
REGULAR HOMEWORK – II**

January 28 (Wed), 2015

Instructor: Yasuyuki Kachi

Line #: 52920.

★ **Due date:** Monday, February 2nd, 2015 .

★ **Your paper will be collected in class. No late homework will be accepted.**

Please see “Rules, Policies and Protocols” p.14 about homework policy.

★ Show work or no credit, for [III] and for [IV].

[I] (6pts) Calculate: $3 + 65537 - 65537$.

[II] (6pts) Fill in the box:

$$2a + 2b + 2c + 2d = 2 \left(\boxed{} \right).$$

[III] (6pts) Solve: $x = 135 - 2x$.

[IV] (12pts) (a) $1 + \underbrace{3}_{\parallel 1+2} + \underbrace{6}_{\parallel 1+2+3} + \underbrace{10}_{\parallel 1+2+3+4} + \cdots + \underbrace{300}_{\parallel 1+2+3+4+\cdots+24} = ?$

(b)

$$\begin{aligned}
 & 1 \\
 & + 1 + 2 \\
 & + 1 + 2 + 3 \\
 & + 1 + 2 + 3 + 4 \\
 & + 1 + 2 + 3 + 4 + 5 \\
 & \vdots \\
 & + 1 + 2 + 3 + 4 + 5 + \cdots + 199 \\
 & + 1 + 2 + 3 + 4 + 5 + \cdots + 199 + 200 = ?
 \end{aligned}$$